PAINTED DESIGNS OF THE NINEVITE 5 POTTERY —PART 2—

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1. Introduction

In the last issue of Numoto [1991: 85–155], this author disccused the painted designs on painted wares from the Late Uruk period through to the Ninevite 5 period. However, that worth emphasised the painted design features of each period without having done research on comparisons and transitions between painted designs for the whole of the Ninevite 5 period. Thus, this paper aims to rectify this while providing a summary of the last issue. Furthermore, this author minutely examined and studied design elements, compositions of design units, and the connection between the painted designs and different types of pottery all of which were scarcely mentioned in the last issue. In this paper, the major emphasis is on the changes and transitions in painted designs. In the course of writing this papers, further questions and corrections occurred to the author relating to the last papers' classifications of painted designs, and these will be tackled herein. This paper follows the chronological order of the Ninevite 5 period established by Roaf and Killick [1987]. It may be noted that this author established and defined the Intermediate period in the last issue of Numoto [1991: 108].

2. Changes, and Developments, in the Elements of Painted Design (Fig. 1, Table 1)

How did painted design elements changes from the Late Uruk through to the Transitional, the Painted and Early Incised periods? Mainly specimens with popular and typical painted features from each period were examined, and were roughly classified by geometric or naturalistic motifs. The frequency of occurrence for the Late Uruk, the Transitional, the Intermediate and the Painted and Early Incised periods was noted. The designs' changes were further divided into four categories:

A: Designs occuring in the Late Uruk and the Transitional periods showing no style change up to the end of the Ninevite 5 period.

B: Elements which disappeared at a contain stage.

C: Elements first appearing in the Intermediate and the Painted and Early Incised periods.

D: Changes occuring at same paint:

a. elements which vary, b. elements with new sub-elements attached.

Group A Typical design elements in the Late Uruk period were the hatched rectangle (No. 1); cross-hatched rectangle (No. 2); cross-hatched triangle (No. 5); solid lozenge (No. 13) and checker (No. 3) motifs. After the first two periods, a change in design occurs. The outside lines of the hatched rectangles, cross-hatched rectangles and cross-hatched triangles are painted thick, while the inside of hatched and cross-hatched lines are extremely fine[1]. After the Transitional period, its most typical design element—the solid lozenges—became very rare, perhaps—as will be mentioned later—due to the increased use of cross-hatched lozenges (No. 14) thereafter. Concentric arcs (No. 20) are thought to have

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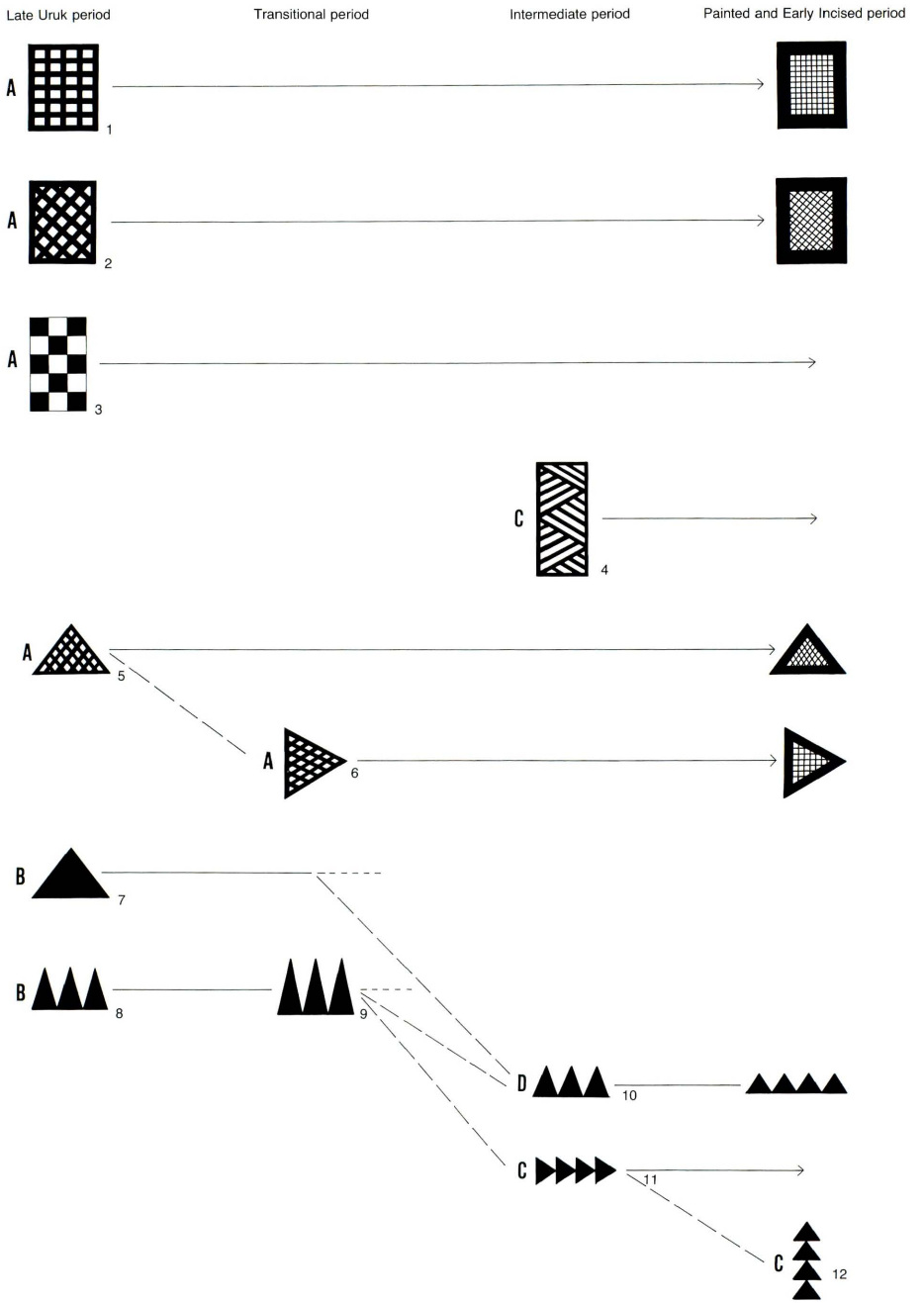
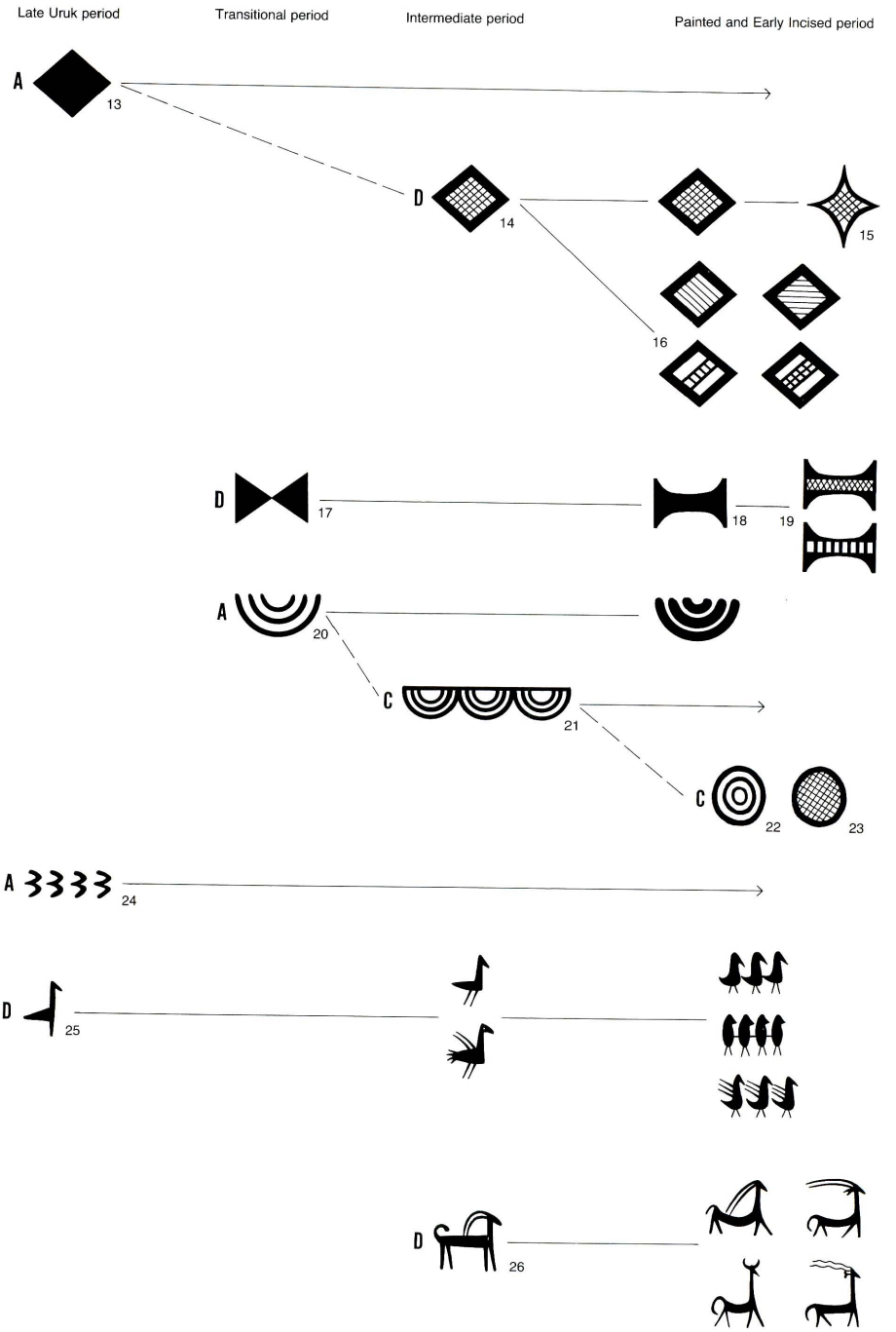


Fig. 1 Changes of the Design Elements


Late Uruk period
Transitional period
Intermediate period
Painted and Early Incised period
A
13
D
14
15
16
D
17
18
19
A
20
C
21
C
22
23
A
24
D
25
D
26

occurred in the Transitional period but its clear origin is unidentified. The use of flying bird motif (No. 24) started in the Late Uruk period and was frequently employed in the two subsequent ages, but less and less so in the Painted and Early Incised period. It was found in many samples from Tell Fisna [Numoto 1988], but on very few from Tell Thalathat [Fukai et al. 1974]. This difference may indicate variations in chronological characteristics and regional disparities. Sideways cross-hatched triangle (No. 6) are also considered to have appeared in the Transitional period, but there are few examples of them from this time. The outline and cross-hatched lines from the sideways cross-hatched triangles after this time become congruent with styles such as the hatched rectangle, cross-hatched rectangle and cross-hatched triangle. This element is also one of the most typical design elements in the Painted and Early Incised period.

Group B This groups' elements are found only in the first two periods' samples, and include only two examples: the solid elongated triangle (No. 9) and the solid triangle (No. 7). The former is one of the most typical design elements from the Transitional period, and may have turned into the low height solid elongated triangles frequently found in the Intermediate period, while the low height equilateral triangle forms characterize the latter and are distinct from the saw-tooth like elements which were popular in the Painted and Early Incised period. It is much more common in the Late Uruk period than in the Transitional period.

Group C The Intermediate period's elements were typically zigzag spacing with slantig lines (No. 4) and rows of solid triangles fallen sideways (No. 11), and did not change in the subsequent period. However the incidence of the zigzag spacing with slantig lines did decrease in the Painted and Early Incised period. What is more, Tell Thalathat leaves hardly any trace of this element, with possible congruent implications to this design as with the flying bird motif mentioned above. The motif of rows of solid triangles fallen sideways is one of the most typical and commonly found designs from the Painted and Early Incised period, but is not so with the Transitional period.

When exactly the motif of rows of concentric arcs (No. 21) first appeared is not known, but because it is not found in the Transitional period, the motif's chronological entry is in the Intermediate period. Yet because this design has similarities with the concentric arcs design drawn, as was mentioned earlier, on the lower part of the body, its origins are seen to have been in the Transitional period.

Columns of solid triangles (No. 12), concentric oval and cross-hatched oval elements (Nos. 22,23) are considered to have occurred in the Painted and Early Incised period. The former element is the most common and was always painted with cross-hatched rectangle elements. There are no examples of the latter two elements in the Transitional period. The prototypes of these oval elements are thought to have

Table 1. Frequency in Use of Design Elements of Fig. 1

No	Types of painted element	L.U.	% (in 26 specimens)	T.R.	% (in 87 specimens)	IM.	% (in 29 specimens)	P.and E.I.	% (in 262 specimens)
1	hached rectangle	0		3	3.4	1	3.4	19	7.3
2	cross-hatched rectangle	4	15.4	13	14.9	4	13.8	16	6.1
3	checker	3	11.5	1	1.1	0		7	2.7
4	zigzag spaces filled with slantig lines	0		0		9	31.0	2	0.8
5	cross-hatched triangle	13	50.0	13	14.9	0		11	4.2
6	sideways cross-hatched triangle	0		2	2.3	0		5	1.9
7	solid triangle	3	11.5	2	2.3	0		3	1.1
8	solid elongated triangle(middle height)	1	3.8	4	4.6	1	3.4	1	0.4
9	solid elongated triangle	0		10	11.5	1	3.4	0	
10	serrated solid triangles	0		0		0		35	13.3
11	sideways solid triangles	0		0		1	3.4	15	5.7
12	columns of solid triangles	0		0		0		16	6.1
13	solid lozenge	1	3.8	13	14.9	3	10.3	4	1.5
14	cross-hatched lozenge	0		0		0		14	5.3
15	cross-like cross-hatched lozenge	0		0		0		5	1.9
16	lozenges filled with elements	0		0		0		6	2.3
17	butterfly	0		19	21.8	3	10.3	0	
18	concave-lens	0		0		0		22	8.4
19	concave-lens filled with elements	0		0		0		3	1.1
20	concentric arcs(zone C)	0		9	10.3	4	13.8	40	15.3
21	rows of concentric arcs	0		7	8.0	2	6.9	12	4.6
22	concentric circles	0		0		0		3	1.1
23	cross-hatched oval or tear-drop	0		0		0		14	5.3
24	flying birds	0		2	2.3	11	37.9	13	5.0
25	bird	1	3.8	0		3	10.3	24	9.2
26	goat or gazelle	0		0		1	3.4	22	8.4

L.U.: Late Uruk period; T.R.: Transitional period; IM.: Intermediate period; P.and E.I.: Painted and Early Incised period
* The numbers of the table are identical with those in Fig.1

been the semi-circular and concentric arcs elements of the Transitional period.

Group D Cross-hatched lozenges (No. 14) and butterfly (No. 17) elements had been included in this group. The former element is not found in the Transitional period. As aforementioned, the origin of this design are thought to have been the solid lozenges design, first painted from the Intermediate to the Painted and Early Incised periods. Indeed, the Painted and Early Incised period originated many lozenge types, with various elements such as lozenges filled with horizontal lines; slanting lines; slanting ladders; etc (No. 16). It is not evident whether the cross-hatched lozenge design was the prototype for them, or not, as the possibility exists that solid lozenges turned directly into these elements. The cross-hatched lozenge, though, is clearly seen as the origin of the cross-like cross-hatched lozenge (No. 15).

The butterfly design is one of the most common of the Transitional period, but is not found in the Painted and Early Incised period. It is presumed to have appeared first between the Late Uruk period and the Transitional period. While not found in the Transitional period, the concave lens-like element (No. 18) is a typical element in the Painted and Early Incised period. Based on these facts [Numoto 1991: 123], the present author suggests the butterfly design turned into the concave lens-like element, as the combination of butterfly and vertical lines is similar to that of the concave lens-like and vertical lines. The first appearance of concave lens-like element is considered to have been from the Intermediate to the Painted and Early Incised periods. It is roughly classified into two types: the solid kind—and most popular, and those kinds filled with various elements (No. 19). It is obviously surmised that the former changed into the latter. Besides, in the Painted and Early Incised period, the various elements were drawn on the spaces of up and down of the concave lens-like element.

Serrated solid triangles (No. 10) are most typical element of the Painted and Early Incised period, but no similar examples are found in the Transitional or the Intermediate periods. This design's origins stem out of the rows of solid triangles design of the Transitional and the Intermediate periods.

This group also includes naturalistic elements (Nos. 25, 26) highly characteristic features of the Ninevite 5 period. A bird motif is the only naturalistic element to have been found in the Late Uruk or the Transitional periods. This example came from the Late Uruk level of Tell Mohammed Arab [Roaf and Killick 1987: fig. 2], and is considered to have been used more commonly only after the Transitional period. When the naturalistic elements first appeared gives important indications as to the connection between North and South Mesopotamia. These elements can be divided into birds, gazelles, goats and plants. The Painted and Early Incised period had many more than the Intermediate period. These examples are more refined and stylish than those of earlier periods. The rows of birds motif, a characteristic element of this group, is presumed to have first appeard in this period. Most of the gazelle and goat motifs are combined with cross-hatched tear-drop motifs or stitch lines [Numoto 1991: 123]. These latter motifs are always drawn in the space between the neck and back of a gazelle or goat. This phenomenon is also indicated that painted designs are densely drawn all over the vessel surface in this period.

Apart from the above-mentioned motifs, some elements were used progressively less in these periods. For example, the herring bone motifs are commonly found in the Late Uruk and the Transitional periods, but are rarely found from the Painted and Early Incised period.

The Group A design elements are the most common from the whole Ninevite 5 period, which had been succeeded from the Late Uruk to the Painted and Early Incised periods, and are thus indispensable design elements.

Strictly speaking, Group B design elements may not have existed. It may be that solid triangle or solid elongated triangle motifs changed into types of rows of solid triangles.

Group C design elements did not appear all of a sudden but evolved from similar elements from

previous periods.

The Ninevite 5 period's geometric design elements are intrinsically rectangular, triangular, lozenge and circular, and all vary more and more with each period.

One can generally say about the geometric design elements that the solid types of design elements (lozenge, butterfly, elongated triangles) are commonly found in the Transitional period; the filling types (cross-hatched triangle, lozenge, rectangle, etc.) are commonly found in the Painted and Early Incised period. It would therefore seem likely that painting techniqes advanced and more varied brushes were employed.

Characteristics of design elements of each type of pottery

Do different types of pottery have different types of design elements? Types of painted wares are roughly classified into carinated bowl, footed bowl, lugged jar and large jar. A meaningful statistical comparison is hard to do, as the spesimen numbers vary from each period. Thus, a comparison between specimens will be presented here, and only points of special interest will be extraporated upon.

In the Late Uruk period, the large jar with nose-lugs has only the cross-hatched triangle, cross-hatched rectangle or cross-hatched band motifs. It is surmised that the other solid types of design elements were not painted on this type of ware.

The design elements on the Transitional period's carinated and footed bowls are almost identical. But specimens of lugged and large jars are rare in the Transitional period and it is thus unclear how frequently each design was used. It is presumed, because of the connection between the concave lens-like motifs of the Painted and Early Incised period, that butterfly motifs were rare on these kinds of jars.

The Painted and Early Incised period's lugged and large jars have few concave lens-like motifs. Most of the latter design elements are found on the footed bowl[2]. The concave lens-like design elements' size, dimensions and shape lend itself to be suitable for the horizontal belt zones, or narrow horizontal oblong panels found mainly on the small to medium-sized footed bowls. It is not thought to have been so suitable for larger footed bowls or the vertical oblong, or large panels, and is thus rarely found on these. This indicates that design elements were indeed chosen according to the shape and size of vessels.

3. Combinations of Design Elements and Their Evolution

Changes of the horizontal belt patterns

If you take one unit of horizontal belt patterns from each period and look at the combinations of design elements, do any rules emerge governing change, and are there any commonalties which bridge periods? How did these design units changes during the Ninevite 5 period? These questions will be discussed below. Horizontal belt patterns of Zone B (upper part of body) were classified into four patterns in the last issue by the present author, as follows [Numoto 1991]:

P1. One element repeated successively.

P2. One element drawn horizontally in the form of a belt.

P3. Zone B being divided into two or three small horizontal zones, and one or three different elements being drawn successively in the small zones.

P4. A pattern assumed to comprise two or three design elements and units drawn alternately.

These follows a brief outline of changes occuring in each pattern (Fig. 5).

P1 Many examples of rows of cross-hatched triangle motifs were found in the Late Uruk period, as are rows of solid triangles and rows of solid lozenge motifs. The former motifs became progressively more scarce through the Transitional period. In the Painted and Early Incised period, the above motifs became

scarce, while rows of concentric arcs and rows of cross-hatched lozenge motifs became the most common. Many of these patterns are also drawn on Zone C (lower part of body) in this period.

P2 This pattern is mainly found in the footed bowls, but the carinated bowls. The reason for this was already discussed in the last issue [Numoto 1991: 89]. The cross-hatched bands are typical motifs in this pattern and while they are commonly found in both the Late Uruk and the Transitional periods, their numbers were severely diminished in the Painted and Early Incised period. There are no examples of large footed bowls or large jars with this pattern in this period. Only a few small-sized footed bowls or lugged jars have this pattern.

P3 This pattern is not found in the footed bowls of the Late Uruk and the Transitional periods. The reason for this was also mentioned in the last issue [Ibid: 89, 91]. The Late Uruk period abounds with examples of which patterns have combined rows of cross-hatched triangles and cross-hatched band motifs. This combination waned in the Transitional period, while examples of combinations of rows of solid elongated triangles and rows of solid lozenges motifs are conspicuous. This pattern has few examples on carinated or footed bowls from the Painted and Early Incised period. Many examples are found on small lugged jars, none on large jars. Most of the designs of Zone C in the footed bowls and lugged jars of the Painted and Early Incised period belong to this pattern. It is considered that this pattern dwindled according to the changes in the shape of vessels[3].

P4 In the Late Uruk Period, many examples show with cross-hatched triangles and cross-hatched rectangles motifs combined, while in the Transitional period, most common are one basic design element combined with vertical or slanting lines or solid elongated triangles. The most common of the latter motifs are the butterfly with vertical lines motif. The P4 pattern is presumed to have first appeared in the Transitional period, but waned in the Painted and Early Incised period, when the most typical in P4 combinations were:

1. Vertical lines with concave lens-like motifs.
2. Vertical lines with solid triangles.
3. Vertical lines with sideway solid triangles.

Combinations of Nos. 2 and 3 are rarely found on Zone B, it is usually found in the top or bottom parts of Zone C. This fact suggests that these two combinations of patterns are regarded as additional, or minor, disign patterns, and as such, were not suitable as the main disign motif on a vessel. Alternatively, the P4 patterns may have decreased as the number of panel patterns greatly increased in the Painted and Early Incised period.

Combinations of design elements of panel patterns and their changes (Figs. 2, 3)

The panel design patterns (P5) are arranged according to some rules. Examples of panel patterns examined here are mainly from the Painted and Early Incised period, and are representative of the Ninevite 5 period as the two types of panel are always systematically arranged according to fixed rules. These panel-design-pattern-combinations can be roughly classified into nine types as follows[4]:

A. Panels being divided horizontally and filled with design elements (Nos. 17b, 18a, 19b, 20b, 21b, 22b, 23a, 24b, 25b, 26a, 27b, 28b, 29b, 34b, 35ab, 37ab, 38b, 39b, 40b).
B. Panels being divided vertically and filled with design elements (Nos. 12a, 13b, 14a, 15b, 16b, 34a, 36a).
C. Panels being divided diagonally and filled with design elements (Nos. 4a, 5a, 6c, 36b, 38a, 39a, 40a, 41ab).
D. Slanting design element (Nos. 30a, 31a, 32a, 33b).
E. Designs consisting only of a single geometric element (Nos. 1ab, 2ab, 3ab, 4b, 5b, 6b, 7b, 8b, 9a,

10a, 11a).

F. Designs consisting mainly of one point-like single geometric element (Nos. 6a, 7c, 8a, 9b, 12b, 13a, 14b, 17a, 18b, 19a, 30b, 31b).

Fa. Designs consisting of repeated-single geometric elements (Nos. 24a, 27a, 28a, 32b).

G. Designs consisting mainly of one single naturalistic element (Nos. 20a, 21a, 25a).

Ga. Designs consisting of repeated-single naturalistic elements (Nos. 10b, 11b, 15a, 16a, 22a, 23b, 26b, 29a, 33a, 39b, 40b).

In the case of Type E, there are examples of panels which are completely filled with cross-hatched lines or horizontal lines, or, a cross-hatched triangle motif. Types F, Fa, G and Ga characteristically have only one single design element on a panel. The concave lens-like motif is the most common of Type F, and is where most examples of Type A are to be found. Typical panel patterns are found in Types A, B and C, where the panel is divided into three zones, either vertically or horizontally; with the two outside zones having the same design elements, while the center zone would have a different one (Nos. 12a, 13b, 14a, 15b, 16b, 24b, 25b, 26a, 34ab, 35ab, 36ab). This phenomenon is labelled as "Sandwich motif" and is marked as "S"[5]. The Type B examples belong to this panel pattern. Types G and Ga are characteristically naturalistic motifs. In the Painted and Early Incised period, they are always the main design on the whole panel. The difference in classification between Types G and Ga relates to the numbers of naturalistic motifs, and has little importance. In the case of specimen No. 15, a Zone B panel has two

Table 2. List of Fig. 2

No	Site	Type	Zone	Zone C	RD(cm)	MD(cm)	Literature
1	Thuwaij	Type 2	B				Numoto in press: Fig.14-94
2	Mohammed Arab	Type 2j	B	Panel	16.8	17.5	Roaf 1983: Fig.3-2
3	Nineveh	Type 4d	B,C			30.5	Thompson and Hamilton 1932: Pl.57-5
4	Mohammed Arab	Type 2j	B	Panel	22.1	23.2	Roaf 1983: Fig.3-1
5	Mohammed Arab	Type 2i	B	C.A.	12.0	13.1	Roaf and Killick 1987: Fig.3
6	Thalathat	Type 2	B	C.A.			Fukai et al. 1974: Pl.48-5
7	Thalathat	Type 2	B		14.5	13.8	Fukai et al. 1974: Pl.48-11
8	Thuwaij	Type 2	B				Fujii et al. in press: Fig.6-5
9	Thalathat	Type 2	B				Fukai et al. 1974: Pl.30-2-15
10	Mohammed Arab	Type 2	B				Roaf and Killick 1987: Fig.3
11	Kutan	Type 2	B				Bachelot 1987: Fig.6
12	Thalathat	Type 2	B	C.A.	11.1	10.3	Fukai et al. 1974: Pl.48-12
13	Rijm	Type 2	B		29.0		Bielinski in press: Fig.11-1
14	Thalathat	Type 4	C				Fukai et al. 1974: Pl.29-2-22
15	Rijm	Type 2n	B	Panel	35.0	33.5	Bielinski in press: Fig.4, Fig.5-B
16	Kutan	Type 4d	Ca	Panel(B),C.A.(Cb)		25.5	Forest 1987b: Fig.114
17	Nineveh	Type 3g	B	C.A.		5.2	Thompson and Hamilton 1932: Pl.55-2
18	Nineveh	Type 1g	B		7.7	9.4	Thompson and Hamilton 1932: Pl.53-14
19	Nineveh	Type 4d	B	C.A.(Cb)		34.3	Thompson and Hamilton 1932: Pl.57-1
20	Nineveh	Type 1h	B	C.A.		13.9	Thompson and Hamilton 1932: Pl.53-8
21	Rijm	Type 2j	B	C.A.	19.7	19.3	Bielinski in press: Fig.10-1
22	Mohammed Arab	Type 2	B	C.A.			Roaf and Killick 1987: Fig.3
23	Mohammed Arab	Type 2	C			32.0	Killick in press: Fig.4-8
24	Thalathat	Type 2j	B	C.A.	24.0	24.0	Fukai et al. 1974: Pl.48-3
25	Thalathat	Type 4d	B			27.0	Fukai et al. 1974: Pl.50-2
26	Rijm	Type 4d	B	C.A.(Cb)	14.0	30.5	Bielinski in press: Fig.4, Fig.5-A
27	Nineveh	Type 4d	B	C.A.	13.3	25.7	Thompson and Hamilton 1932: Pl.57-6
28	Nineveh	Type 4d	B	C.A.(Cb)		29.2	Thompson and Hamilton 1932: Pl.57-2
29	Kutan	Type 3j	B,C		10.0	14.3	Bachelot in press: Type 14
30	Thalathat	Type 2l	B	Panel	41.7	39.0	Fukai et al. 1974: Pl.48-19
31	Thalathat	Type 2	B				Fukai et al. 1974: Pl.31-2-2
32	Thalathat	Type 3	B			21.2	Fukai et al. 1974: Pl.51-7
33	Kutan	Type 2	B	C.A.		15.9	Bachelot in press: Type 14, K 21816
34	Billa	Type 2j	B	C.A.	20.3	19.5	Speiser 1933: Pl.48-1
35	Thalathat	Type 2	B	C.A.			Fukai et al. 1974: Pl.30-1-9,10
36	Mohammed Arab	Type 2	B		20.2	20.4	Roaf and Killick 1987: Fig.3
37	Thalathat	Type 3	B				Fukai et al. 1974: Pl.30-3-3
38	Thalathat	Type 4f	B,C				Fukai et al. 1974: Pl.51-2
39	Billa	Type 2	B				Speiser 1933: Pl.69
40	Thalathat	Type 2j	B	C.A.	24.7	24.3	Fukai et al. 1974: Pl.48-8
41	Leilan	Type 2	C			40.2	Weiss and Mayo in press: Fig.7-5

C.A.: Concentric arcs; RD: Rim diameter; MD: Maximum diameter

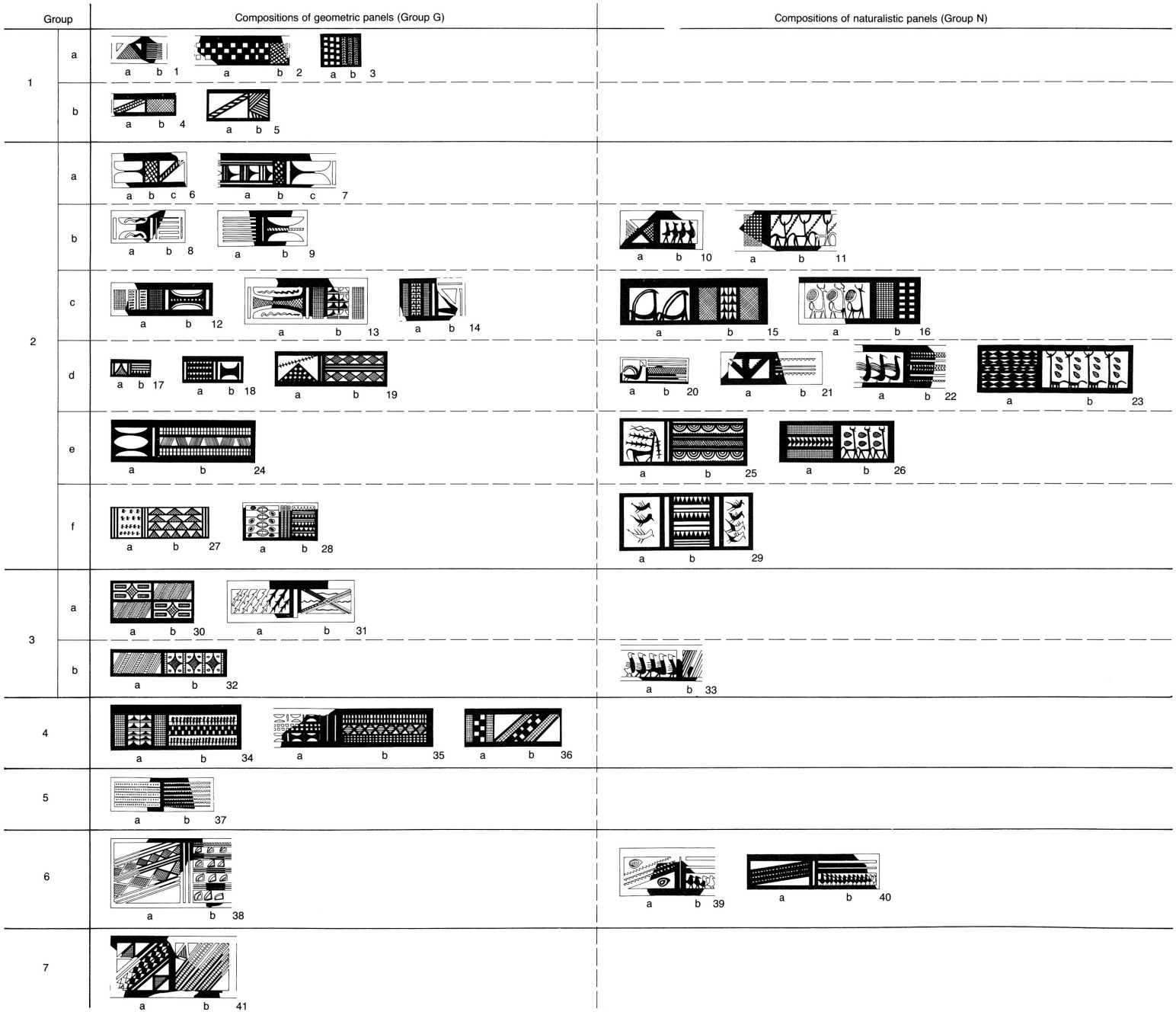


Fig. 2 Compositions of the Panel Patterns in the Painted and Early Incised Period

goats, while a Zone C panel has only one. That is because Zone B has more space than Zone C—a clear indication that size of panel determines the number of elements.

As mentioned above the panel design patterns are consist of combinations of each type of panel and their classification is illustrated in Fig. 2. Some of these specimens are drawn on the footed bowls or jars. These combinations can fall into seven classes[6].

Group 1 The specimens of this group are combined with Type E panels. these are subdivided into combinations of Type E+Type E panels (1a), and Type E+Type C panels (1b). There are comparatively more examples of these from the Transitional and the Intermediate periods than from the Painted and Early Incised period.

Group 2 The combinations in this class are either from Types F (F, Fa) or G (G, Ga) panels. This class has the larger number of examples of panel patterns. Furthermore, these combinations are subdivided into six sub-classes, as follows:

2a. Composed of three types of panels: F+E+A or C.

2b. Combinations of Types F+E and Types Ga+E. It is highly likely that the Type E of No. 11a panel belongs to Type BS. Combinations of Types F+E of 2a and 2b (Nos. 6–9) are basically identical to those of the Group 1.

2c. These combinations are of either Types F or Ga, and Type BS (F+BS, Ga+BS). It is one of the most characteristic panel patterns in the Painted and Early Incised period. These combinations are common to the specimens of Nos. 34 and 36 in Group 4.

2d. The combinations consist of Types F or G or Ga and Type A (F+A, G+A, Ga+A). These combinations are also typical panel patterns in the Painted and Early Incised period.

2e. These cmbinations consist of Types Fa or G or Ga and Type AS (Fa+AS, G+AS, Ga+AS).

2f. Here, the combinations are made up of either Types Fa or Ga and Type A (Fa+A, Ga+A). The Fa and Ga type design elements are always repeated vertically. Moreover, all specimens that have been found with these combinations are found on the shoulder or lower part of body of jars. This indicates that the combinations suited the shape of the jars which allowed for vertical oblong panels.

Group 3 Consists of similar combinations as Group 2, differering though in that the kinds, or combinations, of design elements of Types F and Fa panels are not the same. Group 3 panel patterns consist of Types F or Fa or Ga and Type D (F+D, Fa+D, Ga+D).

Group 4 The combinations consist of the same type of sandwich panels. There are three types of combinations, *i.e.* AS+BS, AS+AS, BS+CS. The combinations in this group are common to the 2c and 2e groups.

Group 5 This panel pattern consists of the same Type A panels (A+A). Only one specimen has been found, and is closely similar to the Group 2f.

Group 6 These panel patterns consist of Types A, A or Ga, and Type C (A+C, A or Ga+C).

Group 7 The panel pattern consists of the same Type C panels (C+C) and, like Group 5, has only one specimen.

There follows a discussion of the most important points relating to the above mentioned groups of panel patterns. Group 2 has many specimens, and these are based on combinations of simple design panels (Types F, Fa, G, Ga) and densely-packed design panels (Types A, B, D, E). The combination of these contrasting panels is considered optical for the balance and layout of the design, as well as for artistic purposes. Thus, it is presumed that the panel patterns of Group 2 were most commonly painted in the Painted and Early Incised period. The prototype of this panel pattern clearly derived from the Late Uruk and the Transitional periods, as will be discussed later.

It becomes clear that what kinds of combination of panel patterns is not popular. For example, the combinations of Types F, G+Types F, G and Types F, G+C do not exist. As a rule, naturalistic design panels only occur alternately. This fact indicates that the combinations of the same simple painted style of panels, interspersed with blank spaces, were not drawn in the Painted and Early Incised period. Yet densely painted panel pattern combinations(Group 4) are considered to have been abundant.

Groups 5 and 6 specimen combinations are thought to be rare. Not so many of the once numerous specimens which combined naturalistic design panels (Types G, Ga) now exist.

a. The relations between panel patterns and the types and sizes of the wares

The panel patterns were found on all types of pottery. However, they are mostly found in the footed bowls and large jars, and rarely in small footed bowls or small lugged jars. This shows that panel patterns need a wider area available for painting. Thus, relatively many examples of Groups 1, 2a and 2b (with their simple characteristics), are found on small footed bowls, indicating that complex and densely designed panels are difficult to paint onto small vessels. Thus, larger vessels were always best suited for gazelle and goat motifs, and sandwich motifs (AS, BS), and allowed the full use of potters' skills. If follows, therefore, that the type of panel design is determined by the space available on the painted zones. Actually, the elegant and delicate of painted designs are always found in the large footed bowls or large jars. Judging from these facts, it is evident that the type of panel designs are greatly influenced by the difference of dimension of painted zones. In other words, potters alway decided choice of panel designs according to the dimension of panels.

It is clear that the Group 2f designs are common in jars, while Groups 1, 2a and 2b have a few examples on large jars. Type A panel designs are mainly found in jars (Groups 2f, 5 and 6 (No. 38)). One of the reasons for this has already been mentioned in the section on Group 2f. Another relates to the available spaces in the shoulder of jars (Zone B) and the lower part of body of jars (Zone C) both of which have the vertical oblong panels which are most suited to the drawing of the horizontal repetitious design elements which make up Type A.

Most of the above mentioned panel patterns are drawn on Zone B. They are also combined with the designs in Zone C, but the present author, having examined their link ups to determine whether any rules were discernible, has concluded that so few specimens show evidence of matching in their layouts that it is not therefore possible to precisely understand the characteristics of their combinations.

Most notable combinations on footed bowls are as follows:

1. The painted designs of Zone C are roughly classified into two types: the same panel pattern as Zone B; and concentric arcs.
2. The panel patterns are supposed to have been drawn mainly on Zone C of large-sized vessles from the specimens of Groups 2 and 3.
3. The concentric arcs are assumed to have been drawn mainly on Zone C of small to medium-sizied vessels.

b. Characteristics of panel patterns from each Tell

The most remarkable characteristics are:

1. Many of the specimens belonging to Groups 2a and 2b (Nos. 6–9) were found from Tell Thalathat.
2. Many of the specimens of Group 2d (Nos. 17–20) were found from Nineveh.
3. Most of the specimens of Group 3 (Nos. 30–32) were found from Tell Thalathat.
4. Only one Group 7 specimen was found from Tell Leilan.

As the number of specimens from each site is different, no conclusions about chronological difference

or regional variations can be reached. As for item of No. 3, the panel patterns on specimens Nos. 30 and 32 are presumed to be the newest style of pattern vis-a-vis the division of Zone B, and the combination of the incised pattern. As for item of No. 4, specimen of No. 41 is the only vessel with such as design from the whole the Painted and Early Incised period [Numoto 1991: 145]. It follows that this pattern shows regional variation.

Are there any chronological differences in the panel patterns of the Painted and Early Incised period? Specimes Nos. 27 and 29 of Group 3 are supposed to have been belonged to the earlist stage of the Painted and Early Incised period, or the Intermediate period, according to the whole layout of the painted designs [Ibid 137]. The details of chronological changes of panel patterns will be discussed in the next section. As has been mentioned above, combinations of panel patterns are based only on published material. Other combinations may very well exist. It is evident that the panel patterns are the most characteristic and typical design on painted ware in the Ninevite 5 period.

c. Changes of the panel patterns (Fig. 3)

Fig. 3 briefly illustrates the change in panel patterns from the Late Uruk to the Painted and Early Incised periods. Their origin was in the Late Uruk period, yet only three specimens remain from this time (Nos. 1–3), and all three came from Tell Mohammed Arab. Each of the three has a different combination of panel pattern. No. 1 combines two kinds of Type E panels. No. 2 combines a Type E panel with a herring bone motif and a blank panel. No. 3 combines Types A, E and G panels, and is remarkable because it combines a naturalistic, and a geometric, panel—similar to Group 2 combinations which are the most typical of the Painted and Early Incised period patterns, as discussed earlier. Thus, Group 2f's combination's prototype already existed in the Late Uruk period. Although these are the only three known the Late Uruk period. Specimens, others may still exist. Fig. 3 was based on the above three specimens.

Tow types of panel patterns were especially numerous in the Transitional period: a combination succeeded to the system of specimen No. 1 (Nos. 4, 5, 6), and a combination succeeded to the system of specimens Nos. 2, 3 (Nos. 7–12). These can be further subdivided into the following types:

A. Repetition of Type E panels, and blank panels (No. 4).
B. Repetition of Type E panels, and two elements of panels and blank panels (No. 5).
C. Repetition of Type E panel and Type E panel (No. 6).
D. Combinations made up from two or three elements panels (mostly Type A), and blank panels, or simple single element panels (Nos. 7–12).

These four types were based on designs of the Painted and Early Incised period. There are no pattern D panel pattern specimens where there is repetition of the same design panels, such as those found in the Painted and Early Incised period. Most of the panel patterns of this type are divided horizontally, not vertically. Those vertical herring bones, or vertical ladder motifs, which are drawn on both sides of panels (Nos. 7–10) are presumed to have succeeded to No. 2 patterns. The main characteristics of panel patterns in the Transitional period are as follows [Numoto 1991: 107]:

1. Most of the panel designs are composed of geometric elements only.
2. The blank panels are repeated alternately.
3. Few examples have all panels painted.

In this period, there are much fewer specimens of Zone B panel patterns on footed bowls than in the Painted and Early Incised period, as most of these bowls have narrow B zones which are not suited for drawing panel patterns. Indeed, the panel patterns of pattern D are hardly ever found in the Zone B of footed bowls. Panel designs were always arranged according to the shape and dimensions of the available

Table 3. List of Fig. 3

No	Site	Type	Zone	RD(cm)	MD(cm)	Literature
1	Mohammed Arab	Types 1 or 2	B	14.2	15.3	Killick in press: Fig.1-10
2	Mohammed Arab	Type 1	B	8.2	10.9	Roaf and Killick 1987: Fig.2
3	Mohammed Arab	Type 1	B			Roaf and Killick 1987: Fig.2
4	Fisna	Type 1	B			Numoto 1988: Fig.16-29
5	Nineveh	Type 2	B	14.3	15.1	Thompson and Hamilton 1932: Pl.54-8
6	Fisna	Type 2	B			Numoto 1988: Fig.16-53
7	Nineveh	Type 1c	B	6.6	8.7	Thompson and Hamilton 1932: Pl.53-6
8	Fisna	Type 4	B			Numoto 1988: Fig.17-65
9	Nineveh	Type 1d	B	7.5	11.4	Thompson and Hamilton 1932: Pl.53-13
10	Nineveh	Type 2d	C	15.6	16.9	Thompson and Hamilton 1932: Pl.54-2
11	Karrana 3	Type 1d	B	9.1	12.7	Rova in press: Fig.5-2
12	Karrana 3	Type 1c	B	10.9	14.8	Rova in press: Fig.5-1
13	Fisna	Type 3d	B		16.0	Numoto 1988: Fig.17-70
14	Fisna	Type 3d	C		16.0	Numoto 1988: Fig.17-70
15	Kutan	Type 3d	B		10.0	Forest 1987b: Fig.114
16	Kutan	Type 3d	B	6.3	10.3	Forest 1987b: Fig.114
17	Karrana 3	Type 2e	C	16.7	18.2	Rova in press: Fig.6-1
18	Thuwaij	Type 4c	B	15.2	34.5	Fujii et al in press: Fig.6-1
19	Mohammed Arab	Type 2i	B	12.0	13.1	Roaf and Killick 1987: Fig.3
20	Thalathat	Type 2	B			Fukai et al. 1974: Pl.48-5
21	Mohammed Arab	Type 2j	B	16.8	17.5	Roaf 1983: Fig.3-2
22	Thuwaij	Type 2	B			Numoto in press: Fig.14-94
23	Nineveh	Type 1g	B	7.7	9.4	Thompson and Hamilton 1932: Pl.53-14
24	Thalathat	Type 2j	B	24.0	24.0	Fukai et al. 1974: Pl.48-3
25	Thalathat	Type 2i	B	41.7	39.0	Fukai et al. 1974: Pl.48-19
26	Thalathat	Type 4f	B,C			Fukai et al. 1974: Pl.51-2
27	Billa	Type 2j	B	20.3	19.5	Speiser 1933: Pl.48-1
28	Mohammed Arab	Type 2	C		32.0	Killick in press: Fig.4-8
29	Rijm	Type 2n	B	35.0	33.5	Bielinski in press: Fig.4, Fig.5-B
30	Thalathat	Type 4d	B		27.0	Fukai et al. 1974: Pl.50-2

RD: Rim diameter; MD: Maximum diameter

painted area. Fundamental types of panel patterns common in the Painted and Early Incised period had their origins established in the Transitional period.

As has been mentioned, the present author has established the "Intermediate period" between the Transitional and the Painted and Early Incised periods, because pottery exists with painted design features and panel patterns common to both of these two periods. There are, however, few relevant specimens, on which most of the panel pattern are derived from very similar basic patterns A, B, C and D from the Transitional period. The former three, in particular, undergo little change (Nos. 13–16). Naturalistic motifs, which are rarely found in the Transitional period, are mainly drawn on the blank panels of pattern D, thus painting to a marked decrease in the incidence of blank panels in this period. It is very likely that the repetition rules about geometric or naturalistic panels were commonly abided by in this period. The content of the geometric panel, as in the Transitional period, is drawn horizontally. As a rule, the panel pattern of this period are more densely and regularly painted than in the Transitional period. Yet there is not the orderly regulation of the panel patterns from the Painted and Early Incised period.

In the Painted and Early Incised period, the whole of the vessel surface is always densely painted, with no blank panels at all. As has been discussed, the blank panels of previous two periods are regarded as equivalent to naturalistic panels (Type G) or panels with one point-like element. Thus, it may be concluded that the blank panels evolved into relatively simple design panels. This period witnessed a great increase in the range and variety of panel patterns. The previous two periods had Type A panels (horizontal division), but Types C and D panels appear in the Painted and Early Incised period. Moreover, the repetitions and symmetries are painted more regularly than in the previous two periods. Patterns A and B system's simple design panels (Nos. 19, 20, Groups 1b, 2a) evolved from the blank panels, all the while the panel pattern of pattern C system (Nos. 21, 22, Group 1a) changed very little. However, system of these patterns tend to decrease in this period. Many of panel patterns of the pattern D system appeared (Nos. 23–31). Most common of these were those Group 2 (Nos. 28–30) combinations of geometric, and

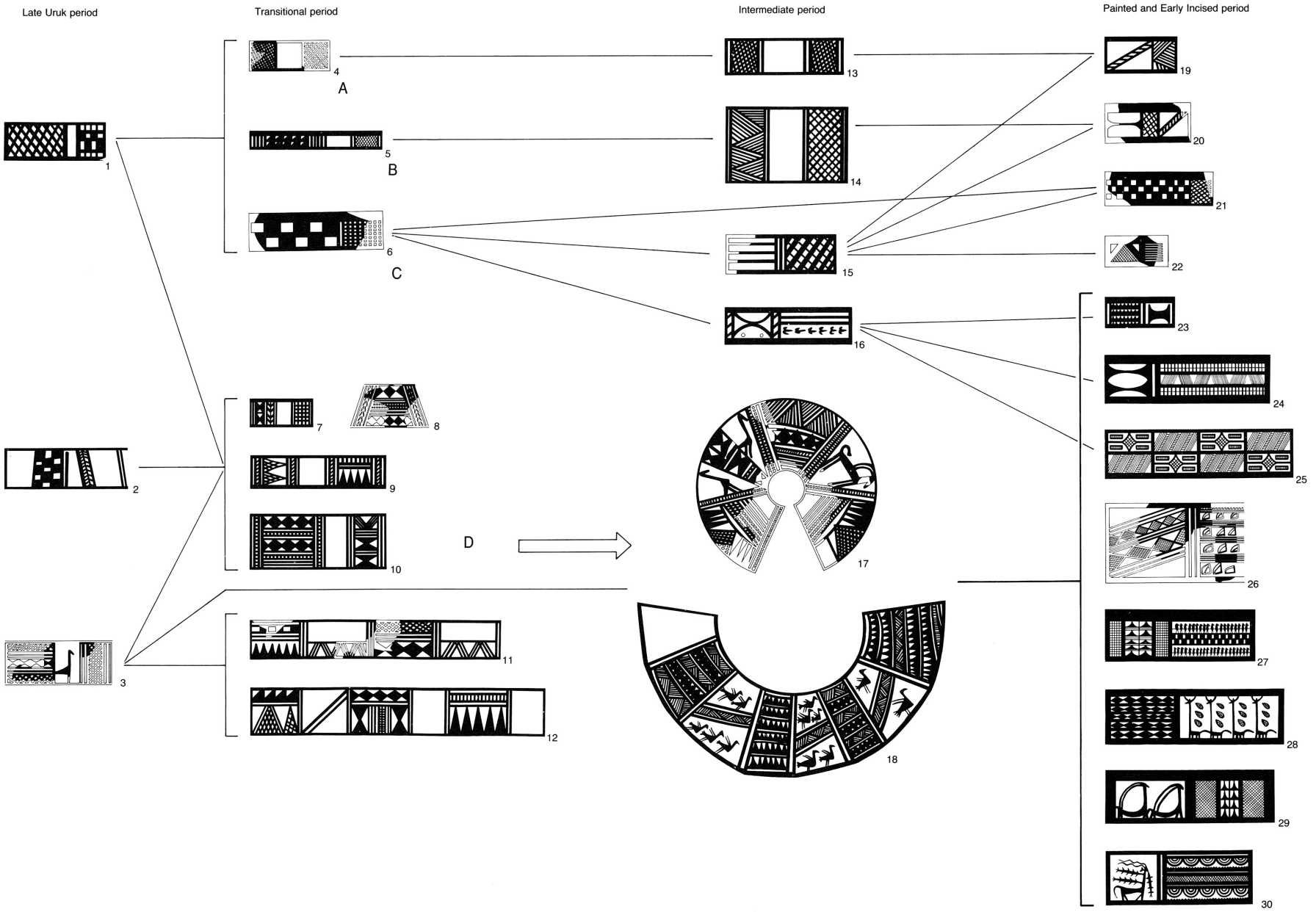


Fig. 3 Changes of the Panel Designs

naturalistic, panels as mentioned above. Yet the previously common vertical herring bones, or vertical ladders motifs on both sides (Nos. 8–10, 17), are not to be found. It is therefore postulated, that this type of panel pattern evolved into vertical division panals (Nos. 27, 29, Type BS) of the Painted and Early Incised period. No clear prototype of the panel patterns of specimens Nos. 24 to 27 (Groups 3, 4, 6) are found in the previous two periods. Judging from this fact, these panel patterns are supposed to have developed from the panel patterns of specimens Nos. 19 to 23. They are presumed to have represented newest features of the panel patterns in the Painted and Early Incised period.

4. Changes and Common Features of the Layout of Painted Designs of Each Type of Ware

(Figs. 4, 5)

Changes of the layout of the painted designs

These follows on examination of how the whole layout of the painted designs on each type of ware changed from the Late Uruk period to the Painted and Early Incised period. In the last issue [Numoto 1991], all of the layout of the painted designs of each type of ware in each period were classified. The changes in the layout of the painted designs in each type of ware from the Late Uruk period to the Painted and Early Incised period are illustrated in Fig. 4. Types of pottery are classified into carinated bowl (Type 1), footed bowl (Type 2), lugged jar (Type 3) and large jar (Type 4). The painted patterns of Zone B of each type are mainly classified into patterns P1 to P5 as mentioned above. Other patterns also exist in types of jar, that is, vertical parallel bands (P6), unpainted (P7) and abstructed motif drawn irregularly (P8). The patterns of Zone C are roughly classified as follows:

a. Not painted.
b. Concentric arcs.
c. Panel patterns.
d. Patterns P1 to P8, and parallel lines.

The former patterns of Zone B arranged in a horizontal way in the figure, and the latter patterns of Zone C arranged in a vertical way. In the figure, the blank columns with a crossing of Zones B and C mean that specimens have not been found yet. Accordingly, the present author has made on estimation of what the pattern of the crossing would have looked like. The estimation can roughly be classified into three types as follows:

1. There is a possibility a pattern in the crossing.
2. There is no possibility a pattern in the crossing.
3. It is difficult to identified whether or not there is a pattern within the crossing.

And, each crossing is shown by the following marks:

A. Mark of a straight line for item No. 1.
B. No mark for item No. 2.
C. Dotted line for item No. 3.

Type 1 (carinated bowl) The P2 pattern is belived to be not of this type. The reason for this is already mentioned in the last issue [Numoto 1991: 89]. There are no specimens with painted designs on Zone C in the Late Uruk period. This phenomenon is common to all Late Uruk pottery. In the Transitional period, most of the specimens which have painted designs on Zone B only. Specimens with a combination of concentric arcs on Zone C are a P3 pattern. However, since there are examples of combinations of Type 2, it is assumed that there are also specimens of combinations of patterns P1, P4 and P5 and concentric arcs. There are no specimens which combine these with panel patterns, but there is a slight possibility of the existence of a combinations of a P5 pattern and panel pattern. Combinations of

other patterns except as mentioned above are thought not to exist in the Transitional period.

The Intermediate period, a creation of the present author, therefore, specimens included in this period could be taken as belonging to either the Transitional period or the Painted and Early Incised period. The number of the specimens of any type included in this period are few. The specimens of Type 1 are also few. Most of the specimens of the painted designs recognized at the Transitional period are presumed to have succeeded to this period. The combination of P3 (Zone B)+the same P3 design of Zone B (Zone C) appeared in this period. This combination is not recognized in the Transitional period. Accordingly, it is thought to have first appeared in this period. There is a possibility that the combinations of P1, P4 or P5 (Zone B)+same P1, P4 and P5 patterns of Zone B (Zone C) are also exist.

In the Painted and Early Incised period, painted designs are densely drawn all over the vessel surface, it is therefore presumed that most of the combination of layout existed. The most remarkable feature among these specimens is that the P4 pattern tends to decrease or vanish. The reason for this is presumed to be that the number and type of panel pattern (P5) increased in this period as discussed in the previous section. The composition of patterns P4 and P5 are basically identical, as two different types of designs are repeated alternately.

Type 2 (footed bowl) The P3 pattern of this type is not found in the Late Uruk and the Transitional periods. The reason for this is also mentioned in the last issue [Numoto 1991: 89]. Specimens which have many of combinations were found in the Transitional period. However, combinations of P1 (Zone B)+panel pattern (Zone C) and P4 (Zone B)+panel pattern (Zone C) are not found, but it is thought to exist. As discussed above, specimens of Zone B of this type with panel pattern (P5) are very few compared with those of Type 1 in the Transitional period.

Details of the Intermediate period are not known. The combinations of layout found in the Transitional period are assumed to have mostly succeeded to this period. On the other hand, specimens which have painted designs only in Zone B (type a) are considered to have decreased. Specimens, which were prototypes of various combinations of layout seen in the Painted and Early Incised period are belived to have existed in this period. Two specimens which have combinations of both P1 (Zone B)+different design of Zone B (Zone C) are considered to have belonged to the Painted and Early Incised period in the last issue [Numoto 1991: 127, 128]. However, judging from the features of their shape and design elements, they should be included in this period.

In the Painted and Early Incised period, many combinations of layout appear. These combinations can roughly be classified as follows:

1. Combination of concentric arcs in Zone C.
2. Combination of panel pattern (P5) (Zone B) and panel pattern (Zone C).
3. Combination of horizontal belt patterns (P1–P4) (Zone B)+horizontal belt patterns (P1–P4) (Zone C).

There are no specimens with painted designs in Zone B only, in this period. The same phenomenon is common to Types 3 and 4. Specimens of the P3 pattern, which are not found in the Late Uruk and the Transitional periods appear in this period. On the contrary, specimens of P2 patterns are very few. The reason for this belived to be width of Zone B, that is, the width of Zone B of the footed bowls of this period are larger than those of the Transitional period. Also, P3 pattern is regarded to be not suitable for the shape of footed bowls with a wide space in Zone B. In the Painted and Early Incised period, the specimens of P4 pattern also decreased more than those in the Transitional period. The reason for this is identical with Type 1 as discussed above. These facts suggest that the painted patterns changed according to the transition in the shape of the vessels. In this period, there is only one specimen with a combination of patterns P1, P2, P3 or P4 (Zone B)+panel pattern (Zone C) of the Transitional and the Intermediate

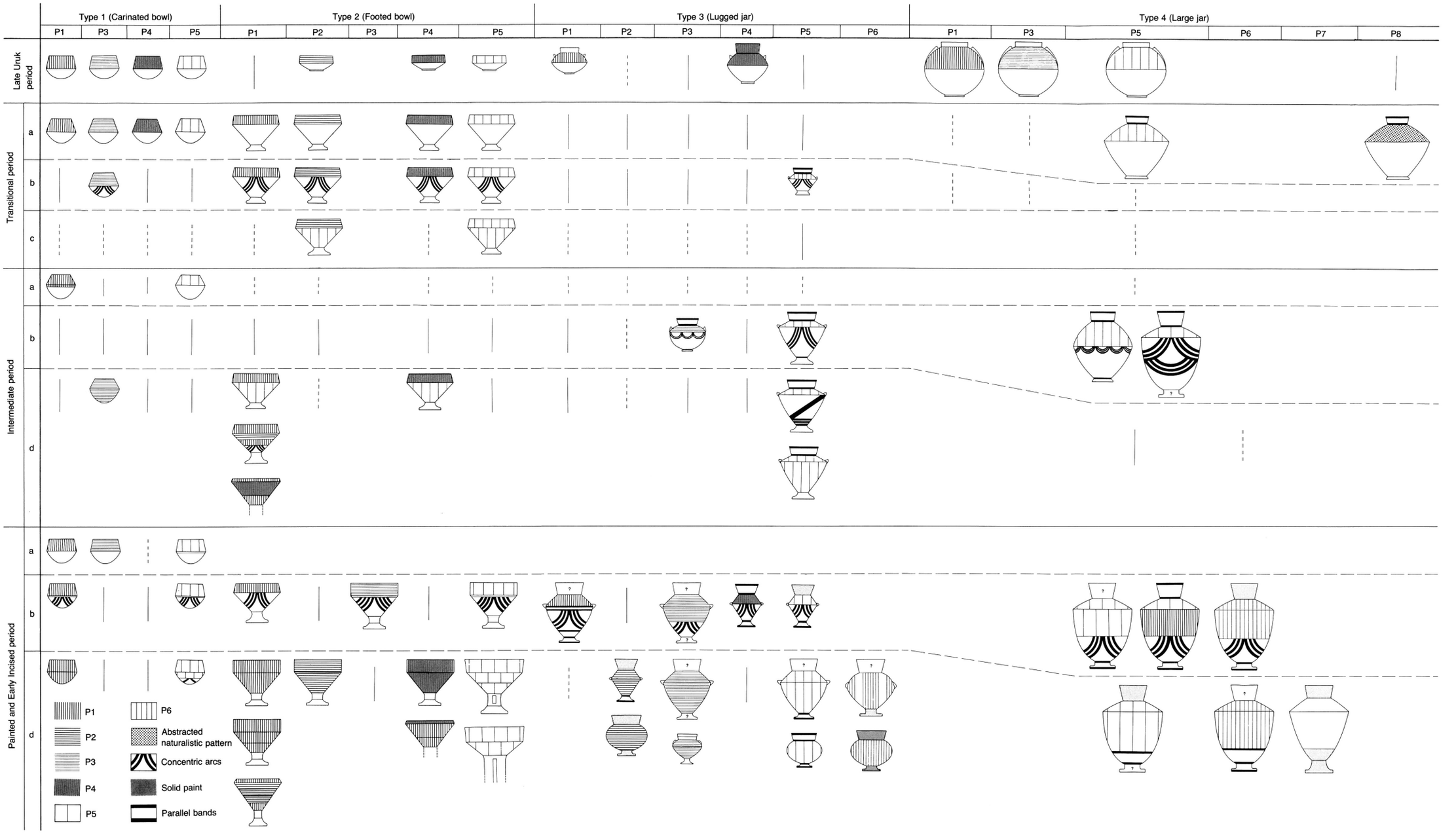


Fig. 4 Changes of the Layout of the Painted Designs—Part 1

periods[7]. P1, P2, P3 and P4 patterns of Zone B are always combined with the horizontal belt patterns of Zone C (P1–P4). These patterns of Zone B are presumed to never combine with the panel pattern of Zone C. The panel patterns of Zone C, which were combined with P5 pattern of Zone B in the Transitional period are basically a vertical division, while the panel patterns of Zone C in this period are always a roughly horizontal division. The combinations of layout of painted designs in this period, such as a tendecy for the design patterns of Zone B to be repeated in Zone C are more regular than those of the previous periods.

Type 3 (lugged jar) Specimens of this type are very few in the Transitional period, therefore, it is not known whether types of combination exist. Accordingly, the present author will discuss here specimens of Types 1 and 2 of the Transitional period and Type 3 of the Painted and Early Incised period. P1 to P5 patterns of Zone B are belived to have certainly existed. Combinations of P1, P2, P3 or P4 (Zone B)+ concentric arcs (Zone C) are also considered to have existed. In addition, there is a strong possibility that the combination of P5 (Zone B) and panel pattern (Zone C) also existed. Details of the Intermediate period are not clear, however, it is assumed a variety of combinations of painted patterns increased during this period. In the Painted and Early Incised period, many types of shape appear, and hence, there are various types of combinations. The most remarkable feature of these painted patterns is that the P6 pattern first appeared in this period. This pattern is regarded to have mainly appeared on the small to medium-sized jars with rounded body. The rules of combinations of P1 to P5 of Zone B and patterns of Zone C are mostly identical with those of Type 2 as discussed above.

Type 4 (large jar) In the Late Uruk period, only patterns P1,P3 and P5 are found. Specimens of patterns P2 and P4 are not found in the Painted and Early Incised period. Judging from this, these two patterns are regarded to have not arranged on this type of large jar. The P2 pattern is not suitable for the wide space of Zone B as already mentioned above. There are almost no specimens showing the whole layout of painted designs from the Transitional period. However, judging from the painted designs of potsherds, it is presumed that the P5 pattern is used frequently. Combinations of P5 pattern (Zone B) and panel patterns or concentric arcs (Zone C) are assumed to have existed. There is only one P8 pattern which came from Tell Fisna (No. 97). It is characterized by the design of its irregular abstracted motif. This pattern is considered to be the distinctive design pattern in the Transitional period.

Two specimens of combinations of P5 (Zone B) and concentric arcs (Zone C) are included in the Intermediate period. One of them, a specimen of combination of P5 (Zone B) and double concentric arcs is considered to have belonged to the Painted and Early Incised period in the last issue [Numoto 1991: 137]. However, judging by its features, shape and concentric arcs, it is concluded that this specimen should be included in the Intermediate period. Presumably, in this period, painted designs had not been so densely drawn all over Zone C, compared to those of the Painted and Early Incised period.

In the Painted and Early Incised period, the main painted patterns of Zone B are patterns P5 and P6. The most typical design layout is a combination of P5 (Zone B) and concentric arcs (lower part of Zone C). There are no specimens of large jars which have only concentric arcs are drawn on Zone C. The reason for this is that the dimension of Zone C of Type 4 vessels is too wide for drawing concentric arcs. If only concentric arcs are drawn a large blank space remaining in Zone C. Leaving blank spaces runs against the painting conventions of this period, as painted designs are drawn densely all over the vessel surface. Consequently, concentric arcs are always drawn on the lower half part of Zone C. This area is the most suitable for drawing concentric arcs. Thus, in Zone C of Type 4 vessel, suitable space was always arranged according to the type of design pattern. The same phenomenon is also common to all the vessels of the Painted and Early Incised period. P6 pattern is always arranged from Zone B through to Zone C. There are no specimens of P6 pattern drawn in either Zones B or C. P7 pattern is assumed to have first appeared in this period. Specimens which belong to this pattern do not have painted designs on Zones B

and C. Painted designs are mainly arranged on Zones A and D. This pattern can not be regarded as the distinctive pattern of this period, because similar examples are found in Type 3 vessels. Consequently, there is a possibility that the P7 pattern is a relatively common design pattern of the Painted and Early Incised period.

The genealogical diagram (Fig. 5) shows the whole layout of the painted designs of each type of pottery from the Late Uruk period to the Painted and Early Incised period. Specimens illustrated in Fig. 5 are the scale allowing us to compare the painted designs of vessels of different size and type. The classification of composition of painted designs was based on that of Fig. 4. Patterns P1 and P4 are regarded to be basically the same design pattern, therefore, here, these two patterns are included in the same group. The outline of the changes to the layout of painted designs in each vessel type have been mentioned above. Here, only those points which deserve a special mention are discussed.

Carinated bowl Patterns of P1, P3, P4 and P5 of carinated bowl developed from the Late Uruk period to the Transitional period. The detail of the Intermediate period is not known. Specimens Nos. 14 and 15 are considered to have features of both patterns P1 and P3.

Specimens of painted designs of the Painted and Early Incised period are roughly classified into patterns P1 and P3 (1G) and P5 pattern (2G). Prototype of the layout of painted design of specimen No. 20 (1Gc) is regarded to be that which is seen in specimen No. 11 the Transitional period. Painted style of specimens Nos. 23 and 24 (2Gc) does not change from those of specimens of the Transitional and the Intermediate periods. On the other hand, 2Ga (No. 21) and 2Gb (No. 22) patterns are a variety of the P5 pattern, and it is evident that they first appeared in this period. In this period, concentric arcs are presumed to have been mostly drawn on Zone C of the carinated bowl. Painted carinated bowls are commonly found in the Transitional period, and are few in the Painted and Early Incised period. Consequently, there is less variety of pattern on the carinated bowls than that seen on the footed bowls.

Footed bowl In the Transitional period, the painted patterns of footed bowls are roughly classified into three groups:

1. P1, P4 patterns.
2. P2 pattern.
3. P5 pattern.

Among these specimens, combinations of concentric arcs (Nos. 30, 31, 33, 36) or panel pattern (Nos. 37, 38) on Zones C are considered to be a new style of layout in the Transitional period. These two combinations are based on the designs of the Painted and Early Incised period.

There are very few specimens in the Intermediate period, it is therefore not clear how the layout of painted patterns developed from the Transitional period.

The layout of the painted designs in the Painted and Early Incised period are roughly classified into following three groups (3G, 4G, 5G).

1. **3G:** This group comprises of combinations of P1, P2 or P4 (Zone B)+horizontal belt patterns (Zone C). It can also be subdivided into the following three types:
   a. P1 or P2 (Zone B)+the same design pattern of Zone B (Zone C) (Nos. 41–47).
   b. P1 (Zone B)+the same P1 of Zone B and the different design pattern of Zone B (Nos. 48–51).
   c. P1 (Zone B)+the different design pattern of Zone B (Zone C) (Nos. 52–54)[8].
2. **4G:** The composition of the design patterns in this group is combined with concentric arcs in Zone C, and they are subdivided into following three types:
   a. P1 (Zone B)+concentric arcs (Zone C) (No. 55).
   b. P3 (Zone B)+concentric arcs (Zone C) (Nos. 56, 57).

c. P5 (Zone B)+concentric arcs (Zone C) (Nos. 58–62).

3. **5G:** The composition of the design patterns in this group is combined with P5 patterns either in Zones B or C. These can also be subdivided into three types as follows:

a. P5 (Zone B)+P5 (Zone C) (Nos. 63–66).

b. P1 (Zone B)+P5 (Zone C) (No. 67).

c. P5 (Zone B)+concentric arcs (Zone C) (Nos. 58–62).

There are very few specimens from the Intermediate period, it is therefore not clear how the painted layout of such specimens developed from the Transitional period. However, examples, which are considered to have clearly developed from the basic design layout of the Transitional period, are as follows:

1. 3G group developed from P1 and P2.
2. 4Ga group developed from specimen No. 31.
3. 4Gb group developed from specimen No. 33.
4. 4Gc group developed from specimen No. 36.
5. 5Ga group developed from specimen No. 37.
6. 5Gb group developed from specimen No. 38.

The most notable items from this period are mentioned below. There are almost no specimens of combinations of P1 or P4 (Zone B)+concentric arcs (Zone C) (Nos. 30, 31) and P2 (Zone B)+concentric arcs (Zone C) (No. 33) such as these commonly found in the Transitional period. The most common design combination in this period is a 4Gc group (P5+concentric arcs).

Lugged jar As the number of specimens of lugged jars are few in the Late Uruk and the Transitional periods, information regarding the changes to painted designs is scant.

The layout of the painted designs of the Painted and Early Incised period are roughly classified as follows:

1. **6G:** P2 or P3 (Zone B)+the same P2 or P3 of Zone B (Zone C) (Nos. 76–79).
2. **7G:** Combination of concentric arcs in Zone C, is subdivided into the following two types:

a. P1 or P4 (Zone B)+concentric arcs (Zone C) (Nos. 80–82).

b. P5 (Zone B)+concentric arcs (Zone C) (Nos. 83, 84).

3. **8G:** The composition of designs belongs to this group are characterized by roughly vertical design. They are divided into two types.

a. Panel patterns are vertically arranged continuously from Zones B to C (Nos. 85, 86).

b. Parallel vertical belt designs are arranged from Zone B through to Zone C (Nos. 87–89).

4. **9G:** There is almost no paint in Zones B and C (Nos. 90, 91).

Specimens of 6G are considered to have appeared based on patterns P2 and P3. Its prototype is presumed to have existed in the Intermediate period. Specimens of 7G are belived to have directly succeeded to the layout designs of specimens Nos. 71 and 72 of the Intermediate period. Specimens of 8Ga are regarded to have developed from the panel pattern of specimen No. 74. On the other hand, specimens of 8Gb are assumed to have developed from the evolution of panel patterns. There is a possibility that a prototype did exist in the Intermediate period. The origins of specimens of 9G are not known, it is however supposed to have appeared in the Painted and Early Incised period.

Large jar Three design patterns, which are P1, P3 and P5 are attributed to the Late Uruk period. However, P5 patterns are mainly found after the Transitional period. This fact suggests that patterns of P1 and P3 vanished after the Late Uruk period. There are no examples which have succeeded to the design pattern of specimen No. 97.

The layout of the painted designs of the Painted and Early Incised period are classified as follows:

1. **10G:** The composition of these designs are basically a panel pattern.

Table 4. List of Fig. 5

No	Site	Type	Zone	RD(cm)	MD(cm)	Literature
1	Mohammed Arab	Type 1a	B	8.7	9.3	after Killick in press: Fig.1-9
2	Mohammed Arab	Type 1	B	12.9	17.8	after Killick in press: Fig.1-11
3	Nineveh	Type 1b	B	10.7	14.0	after Thompson and Hamilton 1932: Pl.53-15
4	Mohammed Arab	Type 1	B	8.2	10.9	after Roaf and Killick 1987: Fig.2
5	Mohammed Arab	Type 1	B			after Roaf and Killick 1987: Fig.2
6	Nineveh	Type 1c	B	9.6	11.8	after Thompson and Hamilton 1932: Pl.53-7
7	Jigan	Type 1d	B	6.6	10.5	Fujii 1987: Fig.5-12
8	Fisna	Type 1c	B	8.6	11.1	Numoto 1988: Fig.16-21
9	Nineveh	Type 1c	B	8.7	12.3	after Thompson and Hamilton 1932: Pl.53-11
10	Nineveh	Type 1d	B	8.7	11.6	after Thompson and Mallowan 1933: Pl.54-4
11	Brak	Type 1	B,C	9.2	12.0	after Oates 1986: Fig.5-107
12	Nineveh	Type 1c	B	6.6	8.7	after Thompson and Hamilton 1932: Pl.53-6
13	Nineveh	Type 1d	B	7.5	11.4	after Thompson and Hamilton 1932: Pl.53-13
14	Fisna	Type 1e	B,C	7.1	11.1	Numoto 1988: Fig.16-28
15	Chagar Bazar	Type 1f	B,C	8.8	9.8	after Mallowan 1936: Fig.25-1
16	Karrana 3	Type 1	B	8.8	9.5	after Fales et al. 1987: Fig.11-33
17	Mohammed Arab	Type 1	B	4.0	5.4	after Killick in press: Fig.4-13
18	Mohammed Arab	Type 1g	B,C	7.2	8.8	after Killick in press: Fig.4-12
19	Nineveh	Type 1g	B	8.1	9.5	after Thompson and Hamilton 1932: Pl.70-2
20	Thalathat	Type 1g	B,C		11.5	after Fukai et al. 1974: Pl.47-1
21	Nineveh	Type 1h	B,C		13.9	after Thompson and Hamilton 1932: Pl.53-8
22	Nineveh	Type 1h	B,C	6.9	10.7	after Thompson and Hamilton 1932: Pl.53-2
23	Nineveh	Type 1g	B,C	7.7	9.4	after Thompson and Hamilton 1932: Pl.53-14
24	Mohammed Arab	Type 1g	B	7.3	10.0	after Killick in press: Fig.4-9
25	Mohammed Arab	Type 2b	B	15.3	15.6	after Killick in press: Fig.1-13
26	Karrana 3	Type 2a	B	12.0	12.6	after Fales et al. 1987: Fig.9-15
27	Mohammed Arab	Types 1 or 2	B	14.2	15.3	after Killick in press: Fig.1-10
28	Nineveh	Type 2c	B	11.3	12.3	after Thompson and Hamilton 1932: Pl.54-5
29	Karrana 3	Type 2c	B	17.1	18.2	after Fales et al. 1987: Fig.10-21
30	Nineveh	Type 2d	B,C	9.2	9.3	after Thompson and Hamilton 1932: Pl.54-3
31	Fisna	Type 2d	B,C	14.3	15.4	Numoto 1988: Fig.16-58
32	Jigan	Type 2	B	15.7	16.7	Numoto 1991: Fig.26-5
33	Karrana 3	Type 2	B,C	20.3	22.1	after Rova in press: Fig.5-7
34	Nineveh	Type 2	B	14.3	15.1	after Thompson and Hamilton 1932: Pl.54-8
35	Nineveh	Type 2c	B	14.8	17.4	after Thompson and Hamilton 1932: Pl.54-1
36	Karrana 3	Type 2	B,C	14.2	14.8	after Rova in press: Fig.5-8
37	Nineveh	Type 2d	B,C	15.6	16.9	after Thompson and Hamilton 1932: Pl.54-2
38	Nineveh	Type 2	B,C	22.7	24.0	after Thompson and Hamilton 1932: Pl.54-7
39	Kutan	Type 2	B,C	18.4	20.5	after Bachelot in press: Type 15, K 155
40	Karrana 3	Type 2e	B,C	16.7	18.2	after Rova in press: Fig.6-1
41	Kutan	Type 2g	B,C,D	8.6	8.9	after Bachelot 1987: Fig.7
42	Mohammed Arab	Type 2h	B,C,D	8.2	8.6	after Roaf 1983: Fig.3-6
43	Nineveh	Type 2i	B,C	12.8	13.6	after Thompson and Hamilton 1932: Pl.54-4
44	Kutan	Type 2j	B,C,D		16.8	after Bachelot 1987: Fig.7
45	Nineveh	Type 2i	B,C	12.5	13.9	after Thompson and Hamilton 1932: Pl.54-6
46	Rijm	Type 2j	B,C	17.7	18.2	after Bielinski in press: Fig.10-3
47	Mohammed Arab	Type 2j	B,C	17.8	18.9	after Roaf and Killick 1987: Fig.3
48	Rijm	Type 2f	B,C,D	7.8	8.3	after Bielinski in press: Fig.11-2
49	Rijm	Type 2j	B,C	13.8	13.8	after Bielinski in press: Fig.10-4
50	Rijm	Type 2j	B,C	20.5	20.8	after Bielinski in press: Fig.10-2
51	Billa	Type 2k	B,C,D	18.5	20.5	after Speiser 1933: Pl.48-2
52	Nineveh	Type 2e	B,C	14.7	15.6	after Thompson and Mallowan 1933: Pl.54-5
53	Nineveh	Type 2m	B,C	20.7	21.6	after Thompson and Hamilton 1932: Pl.56-3
54	Nineveh	Type 2m	B,C	33.1	34.8	after Thompson and Hamilton 1932: Pl.56-1
55	Thalathat	Type 2e	B,C			after Fukai et al. 1974: Pl.48-7
56	Nineveh	Type 2e	B,C	14.3	15.0	after Thompson and Hamilton 1932: Pl.54-9
57	Thalathat	Type 2j	B,C	30.6	30.2	after Fukai et al. 1974: Pl.48-1
58	Mohammed Arab	Type 2i	B,C	12.0	13.1	after Roaf and Killick 1987: Fig.3
59	Mohammed Arab	Type 2	B,C,D		12.4	after Roaf 1983: Fig.3-4
60	Billa	Type 2j	B,C,D	20.3	19.5	after Speiser 1933: Pl.48-1
61	Rijm	Type 2j	B,C	19.7	19.3	after Bielinski in press: Fig.10-1
62	Thalathat	Type 2j	B,C,D	24.0	24.0	after Fukai et al. 1974: Pl.48-3
63	Mohammed Arab	Type 2j	B,C	16.8	17.5	after Roaf 1983: Fig.3-2
64	Mohammed Arab	Type 2j	B,C	22.1	23.2	after Roaf 1983: Fig.3-1
65	Thalathat	Type 2l	B,C,D	41.7	39.0	after Fukai et al. 1974: Pl.48-19
66	Rijm	Type 2n	B,C,D	35.0	33.5	after Bielinski in press: Fig.4, Fig.5-B
67	Leilan	Type 2	B,C		40.2	after Weiss and Mayo in press: Fig.7-5
68	Nineveh	Type 3b	B		12.8	after Thompson and Hamilton 1932: Pl.55-9
69	Mohammed Arab	Type 3a	A,B	9.7	16.4	after Roaf and Killick 1987: Fig.2
70	Fisna	Type 3c	B,C		10.0	Numoto 1988: Fig.17-64
71	Chagar Bazar	Type 3e	A,B,C	7.1	11.5	after Mallowan 1936: Fig.25-3
72	Kutan	Type 3d	A,B,C	6.3	10.3	after Forest 1987b: Fig.114
73	Kutan	Type 3d	B,C		10.0	after Forest 1987b: Fig.114
74	Fisna	Type 3d	B,C		16.0	Numoto 1988: Fig.17-70
75	Kutan	Type 3j	A,B,C,D	10.0	14.3	after Bachelot in press: Type 14

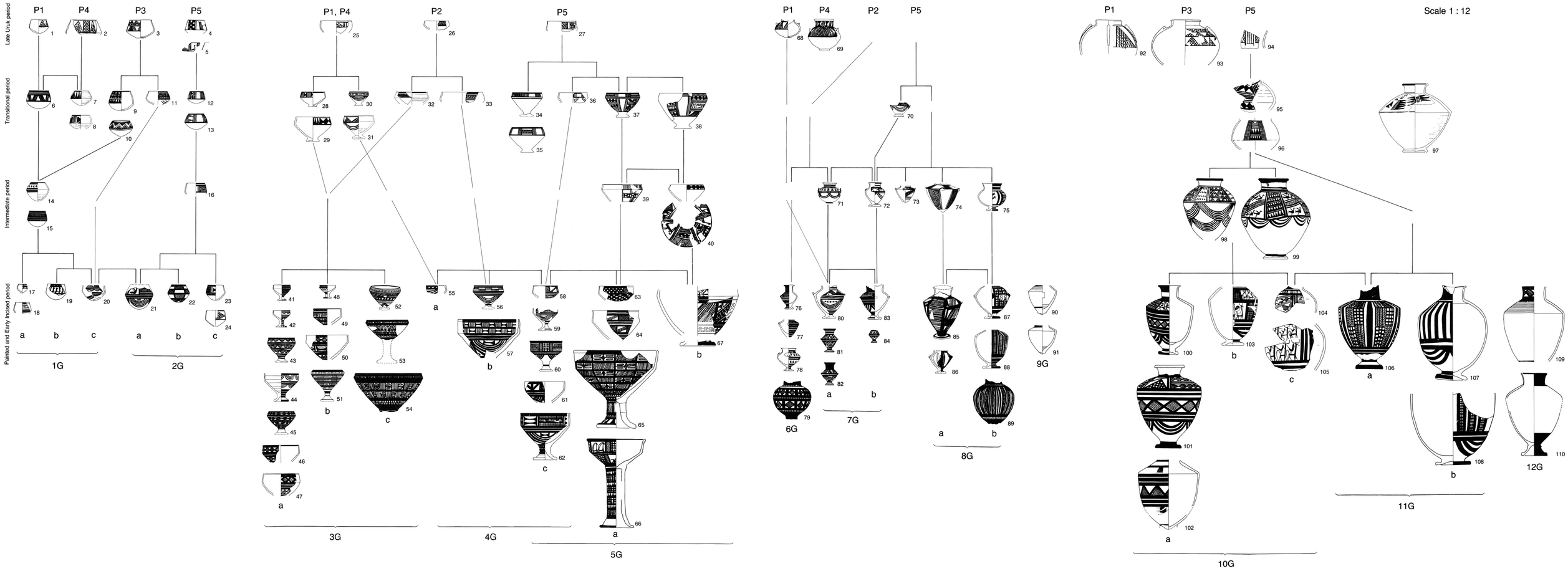


Fig. 5 Changes of the Layout of the Painted Designs—Part 2

76 Nineveh	Type 3g	A,B,C,D	5.4	7.2	after Thompson and Hamilton 1932: Pl.55-8	
77 Kutan	Type 3f	B,C		10.1	after Bachelot in press: Type 15	
78 Kutan	Type 3i	A,B,C,D	7.6	11.5	after Forest 1987a: Fig.8	
79 Nineveh	Type 3j	B,C		18.6	after Thompson and Hamilton 1932: Pl.57-3	
80 Mohammed Arab	Type 3f	B,C,D		14.8	after Roaf and Killick 1987: Fig.3	
81 Nineveh	Type 3g	A,B,C,D	6.3	8.1	after Thompson and Hamilton 1932: Pl.55-7	
82 Nineveh	Type 3g	A,B,C,D	4.5	6.9	after Thompson and Hamilton 1932: Pl.55-1	
83 Nineveh	Type 3f	A,B,C,D		13.7	after Thompson and Hamilton 1932: Pl.55-6	
84 Nineveh	Type 3g	B,C,D		5.2	after Thompson and Hamilton 1932: Pl.55-2	
85 Nineveh	Type 3f	B,C,D		18.4	after Thompson and Mallowan 1933: Pl.54-3	
86 Mohammed Arab	Type 3f	B,C,D		10.0	after Roaf 1983: Fig.3-7	
87 Kutan	Type 3h	B,C,D		17.5	after Forest 1987b: Fig.114	
88 Mohammed Arab	Type 4d	B,C,D		16.6	after Roaf 1983: Fig.3-8	
89 Nineveh	Type 3j	B,C		20.0	after Thompson and Hamilton 1932: Pl.57-9	
90 Thalathat	Type 3	B,C		14.0	after Fukai et al. 1974: Pl.51-4	
91 Thalathat	Type 3	B,C		14.0	after Fukai et al. 1974: Pl.51-3	
92 Mohammed Arab	Type 4a	B	12.8	28.2	after Roaf 1983: Fig.2-2	
93 Karrana 3	Type 4a	B	15.2	34.0	after Rova in press: Fig.3-5	
94 Mohammed Arab	Type 4	B			after Killick in press: Fig.1-6	
95 Fisna	Type 4	B			Numoto 1988: Fig.17-65	
96 Kutan	Type 4	B		25.0	after Bachelot in press: Type 15	
97 Fisna	Type 4	A,B	12.0	36.2	Numoto 1988: Fig.17-71	
98 Nineveh	Type 4d	A,B,C	13.3	25.7	after Thompson and Hamilton 1932: Pl.57-6	
99 Thuwaij	Type 4c	A,B,C	15.2	34.5	Fujii et al in press: Fig.6-1	
100 Rijm	Type 4d	A,B,C,D	14.0	30.5	after Bielinski in press: Figs.4, 5-A	
101 Nineveh	Type 4d	B,C,D		34.3	after Thompson and Hamilton 1932: Pl.57-1	
102 Thalathat	Type 4d	B,C		31.0	after Fukai et al. 1974: Pl.50-3	
103 Kutan	Type 4d	B,C,D		25.5	after Forest 1987b: Fig.114	
104 Thalathat	Type 4f	B,C			after Fukai et al. 1974: Pl.51-2	
105 Thalathat	Type 4f	B,C			after Fukai et al. 1974: Pl.56-78	
106 Nineveh	Type 4d	A,B,C		30.5	after Thompson and Hamilton 1932: Pl.57-5	
107 Thalathat	Type 4d	A,B,C,D	12.6	35.3	after Fukai et al. 1974: Pl.50-1	
108 Kutan	Type 4d	C,D		45.2	after Forest 1987a: Fig.8	
109 Thalathat	Type 4d	A		30.5	after Fukai et al. 1974: Pl.50-4	
110 Mohammed Arab	Type 4e	A,B,C,D	13.0	28.0	after Killick in press: Fig.4-1	

RD: Rim diameter; MD: Maximum diameter

a. P5 (Zone B)+P1 (Zone Ca)+Concentric arcs (Zone Cb) (Nos. 100–102).
b. P5 (Zone B)+P5 (Zone Ca)+Concentric arcs (Zone Cb) (No. 103).
c. P5 (Zones B, C) (Nos. 104, 105).

2. **11G:** The composition of these designs are basically vertical belt patterns.
   a. Vertical panels and thick vertical lines alternately arranged from Zone B through to Zone Ca (No. 106).
   b. One type of vertical belt design being repeated parallel to one another (Zones B and Ca)+concentric arcs (Zone Cb) (Nos. 107, 108).
3. **12G:** Paint is not applied to Zones B and C (Nos. 109, 110).

Specimens of 10G show a variety of composition of P5 patterns (Nos. 98, 99) of the Intermediate period. It is evident that specimens of 10G appeared based on designs of the P5 pattern of the Intermediate and the Transitional periods. Specimens of 12G are presumed to have appeared in the Painted and Early Incised period and are identical with specimens of 9G as mentioned above.

Difference and common features of painted designs between each type of vessel (Figs. 4, 5)

The questions I would like to address are:

—Are there any common features of painted designs between each type of vessel?

—Is there any borrowing or introduction of painted designs between each type of vessel?

First of all, similar or homogeneous design layout among the specimens of the Painted and Early Incised period will be discussed. As the footed bowls specimens are numerous, basic design layouts of these vessels can be compared to those of other types of vessel. Design layouts of each type of vessel common to design layouts of footed bowl are summarized below:

1. Horizontal belt patterns (P1–P4) (Zone B)+the same horizontal belt patterns of Zone B (Zone C)

(3Ga, 3Gb, 6G).

2a. P1 or P4 (Zone B)+concentric arcs (Zone C) (4Ga, 1Gc, 7Ga).

2b. P5 (Zone B)+concentric arcs (Zone C) (4Gc, 2Ga, 7Gb).

3. P5 (Zone B)+P5 (Zone C) (5Ga, 2Gb, 8Ga).

The three types of design layout above are recognized as types of carinated bowl, footed bowl and lugged jar. Consequently, these three design layouts can be the typical three compositions of painted designs of the Painted and Early Incised period. There are no examples identical with the design layout of the large jar. However, compositions of design layout of 10Ga and 10Gb are basically common to the design layout of No. 2b. The design layouts of Nos. 1, 2a and 3 are considered to be unsuitable for the large jar, because of the large size of its painted zones.

The differences between the design layouts of each type of vessel will be discussed here. The design layouts of 9G and 12G are found in only lugged jars and large jars. Judging from this fact, these design layouts were arranged specially for these types of jars. Design layouts of 10Ga and 10Gb which have concentric arcs in the lower half of Zone C (Nos. 100–103) are not found in the lugged jars. Also the design layout of No. 1 which is based on a P2 pattern is rare in large jars. The reason for this has already been discussed. It is concluded that the former design layout is suitable for large-sized vessels, and the latter design layout is suitable for small to medium-sized vessels. Design layouts of 8G and 11G which have roughly vertical belt patterns are found only in types of jar, and not in the carinated and footed bowls. This fact shows that these design layouts are not suitable for vessels with shorter and wider shaped bodies, but rather, they are suitable for vessels with relatively long body shape. The design layouts of footed bowls are roughly horizontal, because their bodies have wider shape. Thus, as mentioned above this fact suggests that the differences in vessel shape and size are closely related to the style of painting employed. Potters always chose the most fitting painted designs according to each vessel's type and shape.

The differences and common features in painted designs compared with the variations in shape and size whithin the same type of vessel

Different types of carinated bowl and footed bowl in the Intermediate period are few, and, therefore, there is no great difference among each type of vessel. Moreover, there is no great difference in the size of specimens of each type. Here, the present author wishes to discuss the main characteristics of the footed bowls, lugged jars and large jars of the Painted and Early Incised period.

1. *Characteristics of footed bowls* The main characteristic features of footed bowls are as follows:

a. In the design layouts of 3Ga and 3Gb, there are found many small to medium-sized vessels.

b. The design layout of 3Gc is found on vessels with a narrow Zone B.

c. The design layout of 5Ga is mainly found on middle to large-sized types.

In the case of item *a*, the cause of this is width of Zone B. That is, the Zone B of large-sized types is too wide for drawing P1 and P4 patterns. In the case of item *b*, chronological differences are relevant. As for item *c*, the relevant issue is the size of painted zone. The drawing of panel patterns needs relatively large spaces, because each panel is filled with some complex design elements. It is technically difficult to draw panel designs on the surface of small types of bowls. Accordingly, panel design is regarded to have been not suitable for the small-sized type of footed bowl.

2. *Characteristics of lugged jars* The most notable features of lugged jars are as follows:

d. The design layout of 6G is mainly found in the small-sized type.

e. The design layout of 8Gb is mainly found in shapes with rounded body.

In the case of item *d*, the reason having similar with that of item *a* as mentioned above. As for item *e*, vertical designs can be smoothly drawn on the rounded shape of body.

3. *Characteristics of large jars*

f. The design layout of 10Gc is found on shapes with a rounded body.

This design is assumed to have not appeared on jars with carination on the body. It is evident that the painted designs have been chosen according to the differences in shape and size within the same type of vessels.

Among the same type of vessel, there are examples of painted patterns which are found in the Transitional period, but not found in the Painted and Early Incised period. On the other hand, there are examples of painted patterns which are found in the Painted and Early Incised period, but not in the Transitional period. For example, the appearance of P3 pattern of design layout in 4Gb or the increase of panel pattern design layouts 5Ga and 5Gc in the Painted and Early Incised period. The emergence and increase of these design patterns is considered to have clearly influenced the development of the type of footed bowl with wide Zone B. This fact also clearly shows that painted designs change according to changes in vessel shape.

5. Conclusions

The present author has discussed the differences, common features and changes of painted designs from the Late Uruk period through to the Painted and Early Incised period. Their features can be summarized as below. Similar types of painted designs tend to be drawn on all types of vessel in the Late Uruk period. Compositions of painted design are simple. Painted designs are arranged according to the difference of shape and size of vessels from the change to the Transitional and the Painted and Early Incised periods. The repetition and complexity of combinations of the painted designs are more advanced. As a rule, painted designs of the Painted and Early Incised period are regarded as the typical painted style in the whole of Ninevite 5 period. However, the basis of these combinations of painted designs has already been established in the Transitional period, as discussed above.

There are many unanswered questions regarding the Ninevite 5 painted designs. The present author would like to address some of them here.

First of all, is there any regional variation among painted designs?; are there characteristic or original painted designs which existed within each tell?

These points are important for understanding whether or not any tells are related to each other. Specimens must be taken from each site in order to carry out comparisons and understand the characteristics of painted designs from each site. However, it is difficult to make comparisons between different sites because of the small amount of painted pottery from each tell. Accordingly, only the particularly remarkable features within the specimens of the Painted and Early Incised period are examined here. The author has also researched the chronological differences and the originality of painted designs within the Painted and Early Incised period. The specimens examined here are from Tells Thalathat, Mohammed Arab and Kutan, as all of these tells have a relatively large number of specimens, excavated from pure occupation levels. Specimens from Tell Kutan are regarded to be of the same period as those of Tell Talathat [Bachelot in press]. However, since there are several specimens which have features predating the Painted and Early Incised period, the author has included these specimens in the Intermediate period [Numoto 1991: 108–116]. There is no major difference between the specimens of Tell Kutan and those of Tell Mohammed Arab. With the exception of these specimens, both have specimens common to each other. The reason for this is presumed to be the proximity of the two tells. There are various differences between the specimens of these two tells and those of Tell Thalathat. Among the latter specimen special features can be discerned. These are summarized as follows [Numoto 1991]:

1. Characteristics of design elements:
   a. Concave lens-like motifs are commonly found.
   b. The motif of flying birds and zigzag spaces filled with slanting lines are hardly found.
2. Characteristics of combinations of painted designs:
   a. Combinations of P5 (Zone B)+concentric arcs (Zone C) are mostly found in the footed bowls.
   b. Examples of combinations of incised motifs exist.
   c. Specimens with simplified painted designs exist (Nos. 102, 107).
3. Characteristics of types and shapes of painted ware:
   a. Only a few painted carinated bowls are found.
   b. There are almost no footed bowls with inclined rims. Most of the footed bowls have upright or slightly everted rims.

As mentioned above these characteristics show chronological differences, regional variation or variation within the same period. Their characteristics can be attributed to these causes:

1. Chronological difference: 1b, 2b, 2c, 3a, 3b.
2. Regional variation: 1b.
3. Variation of same period: 1a, 2a.

However, this classification can only be an assumption. Actually, these three features of variation have become entangled with each other. However, it is evident that these characteristics of painted ware from Tell Thalathat indicate chronological difference within the Painted and Early Incised period. On the other hand, there are no clear characteristics which show regional variation. Roaf and Killick proposed to place the specimens from Tell Thalathat in the latter half of the Painted and Early Incised period [1987, Killick in press]. According to their view, the characteristics of Tell Thalathat painted pottery show the new style of painted pottery from the Painted and Early Incised period. It is difficult to determine whether differences in the same type of pottery and their painted designs are chronological or regional variaitions or variation of same type of pottery.

Relationship of incised ware What influence did the appearance of grey or incised wares bring to bear on painted wares? It is presumed to have strongly influenced the decline of painted wares [Numoto 1991: 147]. Various types of incised ware clearly show the chronological variations within the Painted and Early Incised period. According to the research results of Tell Mohammed Arab [Roaf and Killick 1987: 223], the simple style of incised ware such as notched band pattern were found from the earlist phase of Period 2, and after this phase a complex style of incised ware appeared. Painted wares found together with the former incised wares, clearly are deemed to be older than those found together with the latter incised wares. The occupation of Ninevite 5 level of Tell Thalathat is belived to be one single period. Accordingly, there is almost no chronological difference between its painted and incised wares. According to the details of Tell Mohammed Arab period 2, mentioned above the incised wares of Tell Thalathat are identical with the latter type of incised wares of Tell Mohammed Arab period 2. Consequently, the painted wares of Tell Thalathat can be also regarded to display the new style of the Painted and Early Incised period. This view supports the foregoing assumption that the painted wares of Tell Thalathat should be chronologically placed in the latter half of the Painted and Early Incised period.

The uses of painted pottery There is a possibility that the painted designs are different according to the purpose of the pottery. For example, some are used for household articles, and others are used for storage or working vessels. In other words, the use of pottery was roughly classified into two types: one is always used for moving or carrying, and the other is mainly fixed. This begs the question whether or not there are any differences in these types of pottery. Furthermore, it is belived that potters decided whether to paint or not according to the purpose of the pottery. Painted wares are presumed to have been

mainly used in the room for necessary daily chores. The others, especially, painted large footed bowls and painted large jars are regarded to be principally vessels, and they are thought to have had a fixed position in the living room. Accordingly, it is assumed that attractive elegant designs were drawn on these painted wares rather than those other types of vessels. Artistically, painted designs on small vessels are not as good as those on the larger ones. This fact shows that delicate and elegant painting was difficult to execute on small vessels. The small carinated and footed bowls are thought to have been mainly used for the purpose of individual tableware, and it can be seen that the painted designs were not as carefully drawn as those on the large vessels. In the case of jars with no paintings on Zones B and C from the Painted and Early Incised period, they are supposed to have been mainly used for the purpose of practical tasks.

Finally, it is considered that the changes of political, economic and social systems has had a great influence on the changes of painted designs. Also changes in the system of pottery production are supposed to have taken place. Painted pottery from each tell is considered to have been produced in individual sites. The appearance of grey carinated and footed bowls of the Painted and Early Incised period shows that it is possible to have made mass-produced pottery, before the invention of kiln control [Killick in press]. And, it is evident that the produce of painted ware tended to decrease with the appearance of grey or incised wares. However, it is not known how the production of painted wares in this period changed with social background. In the latter half of the Ninevite 5 period, ornamentations of pottery are simplified, and pottery tended to be more important for practical use. Roughly speaking, the style of ornamentations of pottery of the whole Ninevite 5 period can be classified into two groups: the showy or bright style of the first half of the period; and followed by a simple style in the latter half of the period. The same phenomenon is assumed to have influenced changes in the social system of the Ninevite 5 period. Furthermore, it is necessary to conduct more research on whether or not painted pottery had position or importance among the Ninevite 5 pottery as a whole. This topic must be saved for future investigation.

Acknowledgement

The present author heartfeltly wishes to thank Mr. Alex Woodhatch, who kindly improved the English manuscript.

Notes

1) As has already been mentioned in the last issue, this suggests that several kinds of brush were used than those of the Late Uruk and the Transitional periods [Numoto 1991: 108, 123].
2) Many of these are found on Tell Thalathat specimens, and only on the footed bowl.
3) The importance of carination will be discussed. Most carination on carinated bowls is found in the lower part of middle height of the body, during the Late Uruk and the Transitional periods [Numoto 1989]. Therefore, the upper part of the body has wide spaces (Zone B) and it is possible to subdivided into some horizontal painted zones. On the other hand, during the Painted and Early Incised period most carination is found in the upper part of middle height of the body; thus the upper part of the body has narrow spaces (Zone B). It follows, that it is hard to subdivide this area into horizontal painted zones. All of the painted carinated bowls and footed bowls have carinations on their bodies. This fact suggests that the potters used carination for division of painted zones in the body. The carination serving to clearly divide Zones B and C on the body, and helping with the painting of standardized design patterns.
4) These classifications were divided into six types in the last issue [Numoto 1991: 124].
5) Type AS consists of some 15 pieces, while Type BS has 7 recognized pieces.
6) The combinations of geometric panels are mainly illustrated on the left side in the figure, while the combinations of naturalistic and geometric panels are illustrated on the right side in the figure.
7) This specimen P1 (Zone B)+P5 (Zone C), came from Tell Leilan [Weiss and Calderone in press]. This specimen is thought to be peculiar to this site and region, and is therefore excluded from this classification.
8) Although the painted patterns of specimens Nos. 52 and 54 are regarded to have belonged to the Intermediate period in Fig. 4, there is no firm evidence for this. Consequently, their specimens are included in this period.

Bibliography

Bachelot, L.

1987 The French Archaeological Expedition to Saddam Dam the 2nd, Campaign at Kutan, May/June 1984, *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches,* pp. 89–98.

in press Tell Kutan, Chronological Data, Paper delivered at the Conference on *The Origins of North Mesopotamian Civilization : Ninevite 5 Chronology, Economy, Society,* December 15–19, 1988, Yale University.

Bielinski, P.

1987a Tell Raffaan and Tell Rijm 1984-85, Preliminary Report on Two Seasons of Polish Excavations in the Saddam Dam Project Area, *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches,* pp. 13–19.

1987b Preliminary Report on the Third Season of Polish Excavations on Tell Rijm Omar Dalle Saddam Dam Project Area, *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches,* pp. 24–32.

in press Ninevite Burials at Tell Rijm, Paper delivered at the Conference on *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society,* December 15–19, 1988, Yale University.

Fales, F. M., Tusa, S., Wilhelm, G. and Zaccagnini, C.

1987 German-Italian Expedition to Iraq: Preliminary Report on the First Campaign of Excavations within the Saddam Dam, Reservoir Archaeological Rescue Project (1984), *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches,* pp. 99–128.

Forest, J. D.

1987a Khirbet Derak and Kutan: A Preliminary Report about the French Excavations in the Saddam Dam Area (1983–1984), *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches,* pp. 82–88.

1987b H. Derak et T. Kutan, *Archiv für Orientforschung* 34, pp. 192–194.

Fujii, H.

1987 Working Report on Second Season of Japanese Archaeological Excavation in Saddam Dam Salvage Project (Tell Jigan), *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches,* pp. 62–67.

Fujii, H., Ii, H., Kawamata, M., Matsumoto, K., Oguchi, H., Yagi, K. and Numoto, H.

1987 Working Report on First Season of Japanese Archaeological Excavation in Saddam Dam Salvage, *Researches on the Antiquities of Saddam Dam Basin Salvage and Other Researches,* pp. 33–61.

Fujii, H., Yoshikawa, M., Oguchi, H., Oguchi, K. and Numoto, H.

in press Preliminary Report on the Excavations at Tell Thuwaij, Tell Jessary (Second Season), and Qasr Banat, in press in *Sumer.*

Fukai, S., Horiuchi, K. and Matsutani, T.

1974 *Telul eth Thalathat, The Excavation of Tell V,* Tokyo University press, Tokyo.

Ii, H. and Kawamata, M.

1984/85 The Excavations at Tell Jigan by the Japanese Archaeological Expedition: A Preliminary Report on the First Season of work, *al-Rāfidān,* Vol. V–VI, pp. 151–214.

Killick, R.G.

1986 The Eski Mosul Region, in Finkbeiner, U. & Rölling, W (eds.) 1986, *Gamdat Nasr Period or Regional Style?,* pp. 229–244.

1987 T. Muhammad Arab, *Archiv für Orientforschung* 34, pp. 199–201.

in press The Relative Chronology of Ninevite 5 Pottery from Tell Mohammed Arab, Paper delivered at the Conference on *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society,* December 15–19, 1988, Yale University.

Mallowan, M.E.L.

1936 The Excavations at Tall Chagar Bazar and an Archaeological Survey of the Habur Region, 1934–35, *Iraq 3,* pp. 1–86.

1937 The Excavations at Tall Chagar Bazar and an Archaeological Survey of the Habur Region, Second Campaign 1936, *Iraq* 4, pp. 91–177.

Numoto, H.
1988 Excavations at Tell Fisna, *al-Rāfidān*, Vol. IX, pp. 1–72.
1989 Changes of the Ninevite 5 Carinated Bowl, *al-Rāfidān*, Vol. X, pp. 13–26.
1991 Painted Designs of the Ninevite 5 Pottery, *al-Rāfidān*, Vol. XII, pp. 85–155.
in press Ninevite 5 Pottery from Tells Fisna and Thuwaij and Chronological Problems in Eski-Mosul, Iraq, Paper delivered at the Conference on *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society,* December 15–19, 1988, Yale University.

Oates, J.
1986 Tell Brak: The Uruk/Early Dynastic Sequence, in Finkbeiner, U. & Rölling, W (eds.) 1986, *Gamdad Nasr Period or Regional Style?,* pp. 245–273.

Roaf, M.D.
1983 A Report on the Work of the British Archaeological Expedition in the Eski Mosul Dam Salvage Project from November 1982 to June 1983, *Sumer* 39, pp. 68–82.
1984 Excavations at Tell Mohammed Arab in the Eski Mosul Dam Salvage Project, *Iraq* 46, pp. 141–156.

Roaf, M. and Killick, R.
1987 A Mysterious Affair of Styles: The Ninevite 5 Pottery of Northern Mesopotamia, *Iraq* 49, pp. 199–230.

Rova, E.
in press Tell Karrana 3: Ceramic Evidence for the Late Uruk/Ninevite 5 Transition, Paper delivered at the Conference on *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society,* December 15–19, 1988, Yale University.

Schwartz, G.M.
1985 The Ninevite 5 Period and Current Research, *Paleorient* 11/1, pp. 53–70.
1988 *A Ceramic Chronology from Tell Leilan Operation 1: Yale Tell Leilan Research: Vol.* 1., Weiss, H., ed., Yale University Press.

Speiser, E.A.
1933 The Pottery of Tell Billa, *The Museum Journal* 23, pp. 249–308.

Thompson, R. C. and Hutchinson, R.W.
1931 The Site of the Palace of Ashurnasirpal at Nineveh, excavated in 1929–30 on behalf of the British Museum, *Liverpool Annals of Archaeology and Anthropology* 18, pp. 79–112.

Thompson, R. C. and Hamilton, R.W.
1932 The British Museum Excavations on the Temple of Ishtar at Nineveh 1930–31, *Liverpool Annals of Archaeology and Anthropology* 19, pp. 55–116.

Thompson, R. C. and Mallowan, M.E.L.
1933 The British Museum Excavations at Nineveh 1931–32, *Liverpool Annals of Archaeology and Anthropology* 20, pp. 71–186.

Weiss, H. and Calderone, L.
in press The End of the Ninevite 5 Period at Tell Leilan, Paper delivered at the Conference on *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society,* December 15–19, 1988, Yale University.